

Glamo3365 3D Engine

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3D Features

1. High-performance 16-bit 3D engine
2. High speed Float-point Primitive Geometry/Lighting and clipping Engine (input data : s[8].23; internal precision : s[7].16)
3. High speed Float-point Primitive Setup Engine (input data : s[8].23; internal precision : s[7].16)
4. Support 8 active lights (point, directional or spot), with specular/fog
5. Support two side lighting
6. Support Texture Generation (?)
7. Support Texture Transform
8. High quality/performance 3D texture mapping for interactive entertainment and presentation.
 - Per pixel texture perspective correction
 - Support MIP structure, MIPLODbias
 - Support Multiple Texture up to **two** Texture
 - Support all of the filtering method (Point-sampled, Linear, Bi-linear, NMN, NML, LMN filtering and tri-linear filtering)
 - Texture Transparency
 - Support rectangle texture
 - Support non power of two texture size
 - Support Texture size up to 256x256
 - Support all of the Texture Blending method
 - Support Texture Border Color
 - Texture Wrapping, Mirror, Clamping
 - Support Compressed paletted Texture (4/8 bits)
 - Support high performance flat, and Gouraud shading
9. Support Z-buffer for enhanced image quality, realism, and performance
 - Support 16 and floating format Z-buffer in all rendering modes
 - Support Z bias
10. Drawing Primitives : Point, Line, Triangle
11. Support Primitive list, Fan and strip input.
12. Support all Blending function
13. Support vertex Fog and pixel Fog (linear, EXP and EXP2)
14. Support Point sprite
15. support Line AA.
16. **Support Point AA**
17. **Support Line stipple**
18. **Support Polygon stipple**
19. **Support one plane user clipping plane.**
20. **Support vertex data type : signed byte, unsigned byte, shorted integer, fixed-point and float0pont with default value.**
21. **Support multi-stream upto eight.**
22. **Support two side culling.**
23. Support polygon offset
24. Support line width
25. Support Dither, and ROP
26. Support Alpha Test, Z Test
27. Support Stencil Test and Stencil Buffer (1/ 4/ 8)
28. Support Color, Alpha, Z and Stencil plane write mask
29. Cull-back primitive removing
30. Transparency
31. Support Alphablended colorkey
32. Support Double-Buffering, Triple Buffering
33. Support Alpha Buffer, Alpha Channel
34. Sub-pixel precision
35. Fully compliant OpenGL ES 1.0 Common-Lite Specification.
36. Peak polygon rate: 1M polygon/sec @ 1 pixel/polygon with Gouraud shaded, point-sampled, linear and bilinear texture mapping
37. Peak fill rate: 33 M pixel/sec @ 10,000 pixel/polygon with Gouraud shaded and bilinear textured@ 33MHz

● Texture Blend

Hardware support stages : one stage hardware, but can support maximum two stage

Input : Cfact, Afact, Cdif, Adif, Cspec, Ctex0, Atex0, Ctex1, Atex1, Ccur0, Acur0, Ccur1, Acur1, 0

Input modify : X, X-0.5, 2X, Neg(X), 1-X

Operation A : DP3, DP4, Mul

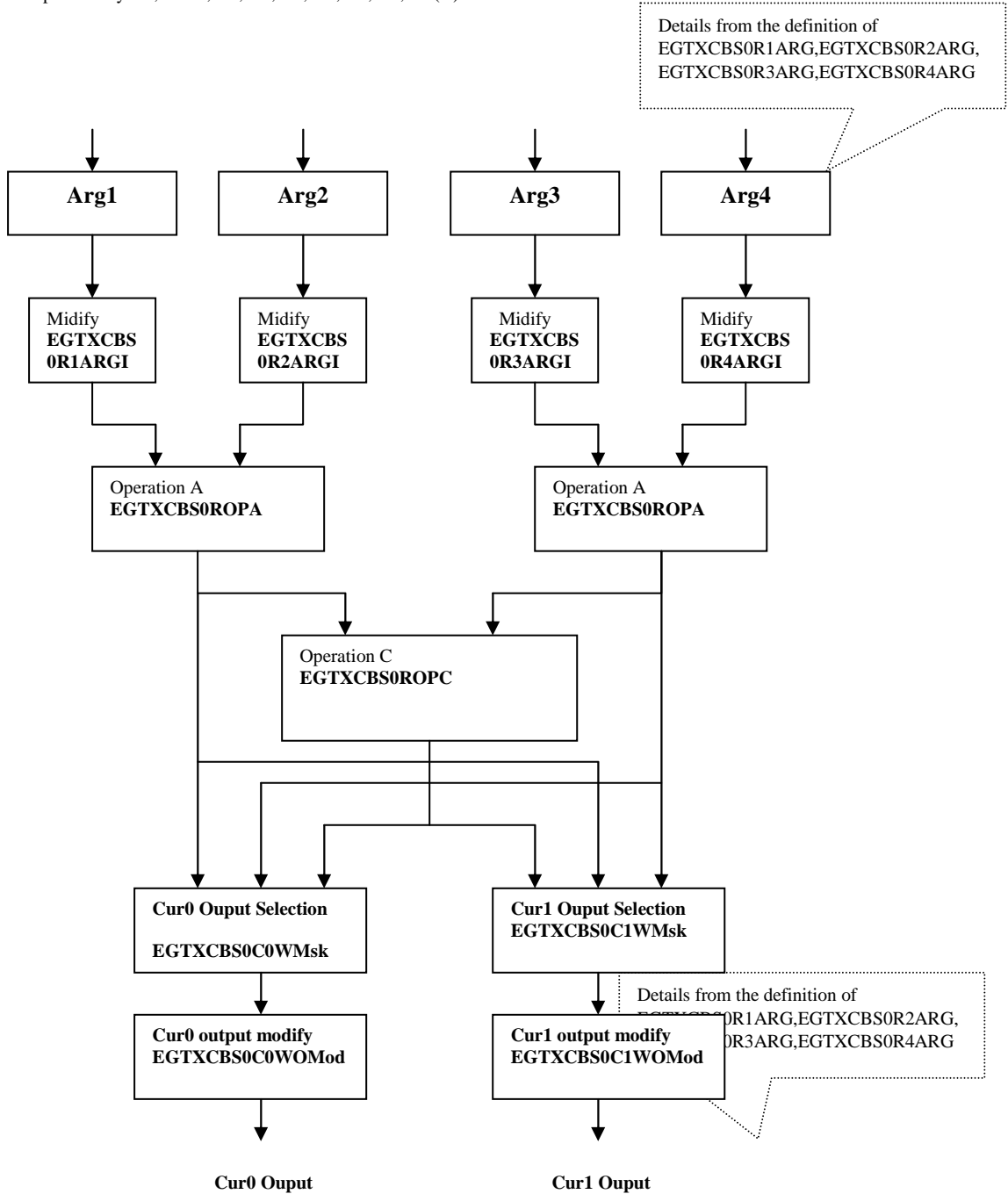
Operation B : DP3, DP4, Mul

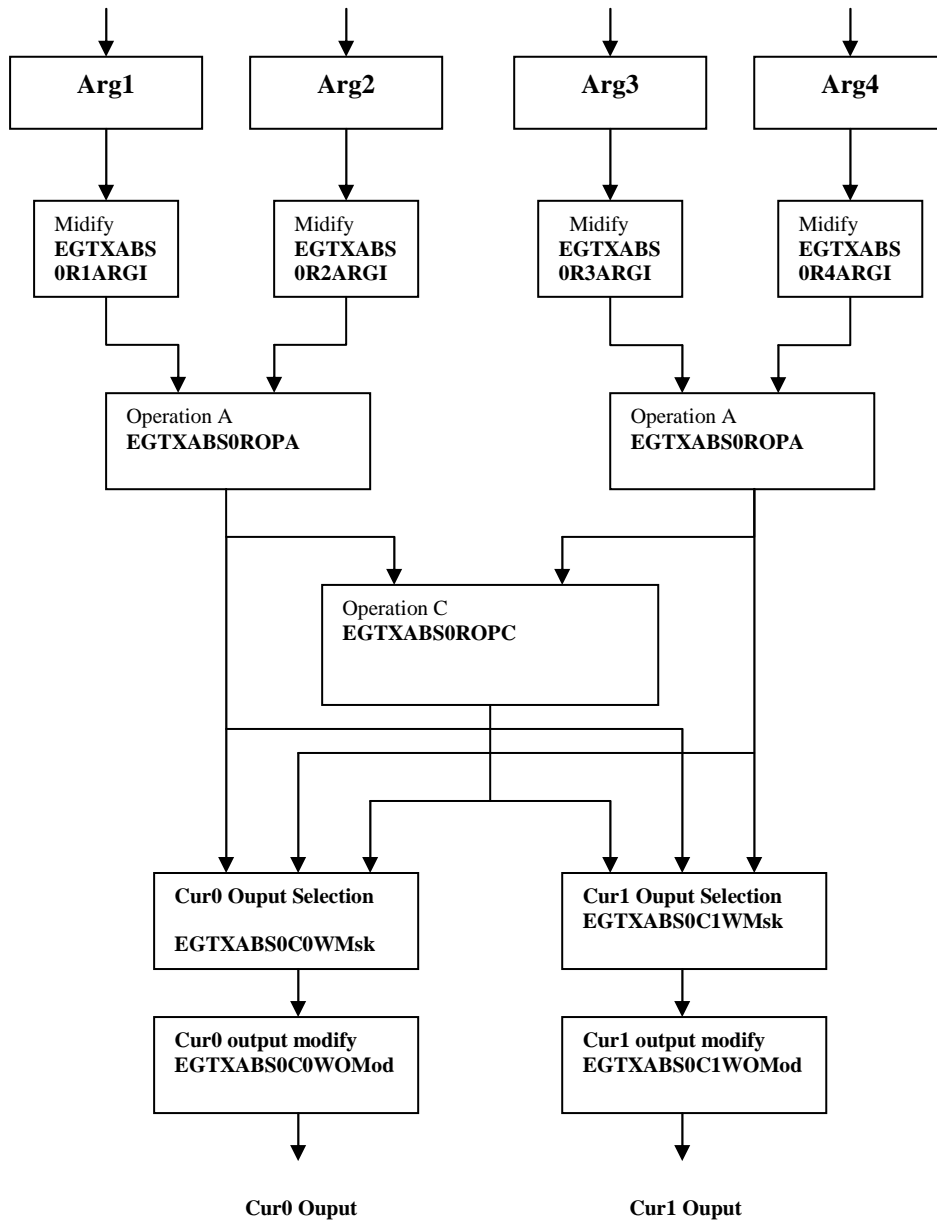
Operation C : NOP, CND_A, CMP, ADD, SUB, CND_B, ADD_sat, SUB_sat

Output 0 : Non, from OP A, from OP B, from OP C, output to t0, output to t0, output to t1

Output 1 : Non, from OP A, from OP B, from OP C, output to t0, output to t0, output to t1

Output modify : X, X-0.5, 2X, 4X, 8X, D2, D4, D8, Sat(X)





Color Blending

Operation : $ab+cdef$

ab: 00 *1
 01 *2
 10 *4
 11 reserved

cdef: 000 $(Arg1+Arg2)*Arg3+Arg4$
 001 $(Arg1-Arg2)*Arg3+Arg4$
 010 $(Arg1.R-Arg2.R)*Arg3.R + (Arg1.G-Arg2.G)*Arg3.G + (Arg1.B-Arg2.B)*Arg3.B$ [A=R=G=B]
 011 $(2*Arg1.R-1)*(2-Arg2.R-1) + (2*Arg1.G-1)*(2*Arg2.G-1) + (2*Arg1.B-1)*(2*Arg2.B-1)$ [A=R=G=B]

Color Blend Mode	Description	EGTXCB S0R1Arg	EGTXCB S0R2Arg	EGTXCB S0R3Arg	EGTXCB S0R4Arg	EGTXCB S0ROP	EGTXCB S1R1Arg	EGTXCB S1R2Arg	EGTXCB S1R3Arg	EGTXCB S1R4Arg	EGTXCB S1ROP
DISABLE	Cdif	Cdif	1-1	1	1-1	00+000	Ccur	1-1	1	1-1	00+000
MODULATE	Ctex0*Cdif	Ctex0	1-1	Cdif	1-1	00+000	Ccur	1-1	1	1-1	00+000
BLEND	$Ctex0*Atex0+(1-Atex0)*Cdif = (Ctex0-Cdif)*Atex0+Cdif$	Ctex0	Cdif	Atex0	Cdif	00+001	Ccur	1-1	1	1-1	00+000
COPY	Ctex0	Ctex0	1-1	1	1-1	00+000	Ccur	1-1	1	1-1	00+000
ADD	Ctex0+Cdif	Ctex0	Cdif	1	1-1	00+000	Ccur	1-1	1	1-1	00+000
DIFFLIGHT MAP	Ctex0*Ctex1*Cdif	Ctex0	1-1	Ctex1	1-1	00+000	Ccur	1-1	Cdif	1-1	00+000
INVDIFFLIG HMAP	$(1-Ctex0)*Ctex1*Cdiff$	1-Ctex0	1-1	Ctex1	1-1	00+000	Ccur	1-1	Cdif	1-1	00+000
SPECLIGHT MAP	Ctex0*Cdif+Ctex1	Ctex0	1-1	Cdif	Ctex1	00+000	Ccur	1-1	1	1-1	00+000
INVSPECLI GHTMAP	$(1-Ctex0)Cdif+Ctex1$	1-Ctex0	1-1	Cdif	Ctex1	00+000	Ccur	1-1	1	1-1	00+000
ADDLIGHT MAP	$(Ctex0+Ctex1)*Cdif$	Ctex0	Ctex1	Cdif	1-1	00+000	Ccur	1-1	1	1-1	00+000
SUBLIGHT MAP	$(Ctex0+(1-Ctex1))*Cdif$	Ctex0	1-Ctex1	Cdif	1-1	00+000	Ccur	1-1	1	1-1	00+000
DYNLIGHT MAP	$(Ctex0+Cdif)*Ctex1$	Ctex0	Cdif	Ctex1	1-1	00+000	Ccur	1-1	1	1-1	00+000
INVDYNLIG HMAP	$((1-Ctex0)+Cdif)*Ctex1$	1-Ctex0	Cdif	Ctex1	1-1	00+000	Ccur	1-1	1	1-1	00+000
TEXTUREB LEND	$(Ctex0*Atex0+(1-Atex0)*Ctex1)*Cdif = ((Ctex0-Ctex1)*Atex0+Ctex1)*Cdif$	Ctex0	Ctex1	Atex0	Ctex1	00+001	Ccur	1-1	Cdif	1-1	00+000
FACTORBL END	$(Ctex0*Afact+(1-Afact)*Ctex1)*Cdif = ((Ctex0-Ctex1)*Afact+Ctex1)*Cdif$	Ctex0	Ctex1	Afact	Ctex1	00+001	Ccur	1-1	Cdif	1-1	00+000
DIFFUSEBL END	$(Ctex0*Adif+(1-Adif)*Ctex1)*Cdif = ((Ctex0-Ctex1)*Adif+Ctex1)*Cdif$	Ctex0	Ctex1	Adif	Ctex1	00+001	Ccur	1-1	Cdif	1-1	00+000
DETAIL	Ctex0*Ctex1*2*Cdif	Ctex0	1-1	Ctex1	1-1	01+000	Ccur	1-1	Cdif	1-1	00+000
DETAILBRI GHT	Ctex0*Ctex1*4*Cdif	Ctex0	1-1	Ctex1	1-1	10+000	Ccur	1-1	Cdif	1-1	00+000
DETAILAD D	$(Ctex0+Ctex1-0.5)*Cdif$	Ctex0	0.5	1	Ctex1	00+001	Ccur	1-1	Cdif	1-1	00+000
DETAILAD DBRIGHT	$(Ctex0+Ctex1-0.5)*2*Cdif$	Ctex0	0.5	1	Ctex1	01+001	Ccur	1-1	Cdif	1-1	00+000
GLOSSMAP	Ctex0*Cdif+Ctex1*Atex0	Ctex0	1-1	Cdif	1-1	00+000	Ctex1	1-1	Atex0	Ccur	00+000
ADDSMOO TH	$(Ctex0+Ctex1-Ctex0*Ctex1)*Cdif$ i.e. $(1-(1-Ctex0)*(1-Ctex1))*Cdif$	1-Ctex0	1-1	1-Ctex1	1-1	00+000	1-Ccur	1-1	Cdif	1-1	00+000

Note : if NOTEXEL then Txblendouput = Cdif

Alpha Blend:

Alpha Blend	Description	EGTXAB	EGTXAB	EGTXAB	EGTXAB	EGTXAB	EGTXAB	EGTXAB	EGTXAB	EGTXAB
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Mode		S0R1Arg	S0R2Arg	S0R3Arg	S0R4Arg	EGTXAB S0ROP	S1R1Arg	S1R2Arg	S1R3Arg	S1R4Arg	EGTXAB S1ROP
DISABLE	Adif	Adif	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
COPY	Atex0	Atex0	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
LINEARBLEND	Atex0	Atex0	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
FACTORBLEND	Afact	Afact	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
ALPHABLEND	Adif	Adif	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
ADD	Atex0+Adif	Atex0	Adif	1	1-1	00+000	Acur	1-1	1	1-1	00+000
MODULATE	Atex0*Adif	Atex0	1-1	Adif	1-1	00+000	Acur	1-1	1	1-1	00+000
DIFFLIGHTMAP	Atex0*Atex1*Adif	Atex0	1-1	Atex1	1-1	00+000	Acur	1-1	Adif	1-1	00+000
INVDIFFLIGHTMAP	(1-Atex0)*Atex1*Adif	1-Atex0	1-1	Atex1	1-1	00+000	Acur	1-1	Adif	1-1	00+000
SPECLIGHTMAP	Atex0*Adif+Atex1	Atex0	1-1	Adif	Atex1	00+000	Acur	1-1	1	1-1	00+000
INVSPECLIGHTMAP	(1-Atex0)*Adif+Atex1	1-Atex0	1-1	Adif	Atex1	00+000	Acur	1-1	1	1-1	00+000
ADDLIGHTMAP	(Atex0+Atex1)*Adif	Atex0	Atex1	Adif	1-1	00+000	Acur	1-1	1	1-1	00+000
SUBLIGHTMAP	(Atex0+(1-Atex1)*Adif	Atex0	1-Atex1	Adif	1-1	00+000	Acur	1-1	1	1-1	00+000
DYNLIGHTMAP	(Atex0+Adif)*Atex1	Atex0	Adif	Atex1	1-1	00+000	Acur	1-1	1	1-1	00+000
INVDYNLIGHTMAP	((1-Atex0)+Adif)*Atex1	1-Atex0	Adif	Atex1	1-1	00+000	Acur	1-1	1	1-1	00+000
DETAILMODULATE2X	Atex0*Atex1*2*Adif	Atex0	1-1	Atex1	1-1	01+000	Acur	1-1	Adif	1-1	00+000
DETAILMODULATE4X	Atex0*Atex1*4*Adif	Atex0	1-1	Atex1	1-1	10+000	Acur	1-1	Adif	1-1	00+000
DETAILADD	(Atex0+Atex1-0.5)*Adif	Atex0	0.5	1	Atex1	00+001	Acur	1-1	Adif	1-1	00+000

OpenGL Texture blending mode

Rv,Gv,Bv=result Av=result
Rt,Gt,Bt=Ctex0 At=Atex0
Rf,Gf,Bf=Cdif Af=Adif
Lt=Ctex0
It=Ctex0
Rc,Gc,Bc=Cfact Ac=Afact

Color Base Internal Format	Texture Function	Description	EGTXCB S0R1Arg	EGTXCB S0R2Arg	EGTXCB S0R3Arg	EGTXCB S0R4Arg	EGTXCB S0ROP	EGTXCB S1R1Arg	EGTXCB S1R2Arg	EGTXCB S1R3Arg	EGTXCB S1R4Arg	EGTXCB S1ROP
ALPHA	DECAL	XX										
	BLEND	Cdif	Cdif	1-1	1	1-1	00+000	Ccur	1-1	1	1-1	00+000
	REPLACE	Cdif										
	MODULATE	Cdif										
LUMINANCE	DECAL	XX										
	BLEND	$Cdif*(1-Ctex0)+Cfact*Ctex0 = (Cfact-Cdif)*Ctex0+Cdif$	Cfact	Cdif	Ctex0	Cdif	00+001	Ccur	1-1	1	1-1	00+000
	REPLACE	Ctex0	Ctex0	1-1	1	1-1	00+000	Ccur	1-1	1	1-1	00+000
	MODULATE	Cdif*Ctex0	Cdif	1-1	Ctex0	1-1	00+000	Ccur	1-1	1	1-1	00+000
LUMINANCE_ALPHA	DECAL	XX										
	BLEND	$Cdif*(1-Ctex0)+Cfact*Ctex0$										
	REPLACE	Ctex0										
	MODULATE	Cdif*Ctex0										
INTENSITY	DECAL	XX										
	BLEND	$Cdif*(1-Ctex0)+Cfact*Ctex0$										
	REPLACE	Ctex0										
	MODULATE	Cdif*Ctex0										
RGB	DECAL	Ctex0										
	BLEND	$Cdif*(1-Ctex0)+Cfact*Ctex0$										

	REPLACE	Ctex0										
	MODULATE	Cdif*Ctex0										
RGBA	DECAL	$Cdif*(1-Atex0)+Ctex0 *Atex0 = (Ctex0-Cdif)*Atex0+Cdif$	Ctex0	Cdif	Atex0	Cdif	00+001	Ccur	1-1	1	1-1	00+000
	BLEND	Cdif*(1-Ctex0)+Cfact*Ctex0										
	REPLACE	Ctex0										
	MODULATE	Cdif*Ctex0										

Alpha Base Internal Format	Texture Function	Description	EGTXAB SOR1Arg	EGTXAB SOR2Arg	EGTXAB SOR3Arg	EGTXAB SOR4Arg	EGTXAB SOROP	EGTXAB S1R1Arg	EGTXAB S1R2Arg	EGTXAB S1R3Arg	EGTXAB S1R4Arg	EGTXAB S1ROP
ALPHA	DECAL	XX										
	BLEND	Adif*Atex0	Adif	1-1	Atex0	1-1	00+000	Acur	1-1	1	1-1	00+000
	REPLACE	Atex0	Atex0	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
	MODULATE	Adif*Atex0										
LUMINA NCE	DECAL	XX										
	BLEND	Adif	Adif	1-1	1	1-1	00+000	Acur	1-1	1	1-1	00+000
	REPLACE	Adif										
	MODULATE	Adif										
LUMINA NCE_AL PHA	DECAL	XX										
	BLEND	Adif*Atex0										
	REPLACE	Atex0										
	MODULATE	Adif*Atex0										
INTENSI TY	DECAL	XX										
	BLEND	$Adif*(1-Atex0)+Afact *Atex0 = (Afact-Adif)*Atex0+Adif$	Afact	Adif	Atex0	Adif	00+001	Acur	1-1	1	1-1	00+000
	REPLACE	Atex0										
	MODULATE	Adif*Atex0										
RGB	DECAL	Adif										
	BLEND	Adif										
	REPLACE	Adif										
	MODULATE	Adif										
RGBA	DECAL	Adif										
	BLEND	Adif*Atex0										
	REPLACE	Atex0										
	MODULATE	Adif*Atex0										

● Alpha Test

Formula :

If the comparison passes, the incoming fragment is drawn, conditional on subsequent stencil and depth test buffer tests.
If the comparison fails, no change is made to the frame buffer at that pixel location.

NEVER	Always Fails
LESS	Passes if $Alpha < AlphaRef$
LEQUAL	Passes if $Alpha \leq AlphaRef$
GREATER	Passes if $Alpha > AlphaRef$
GEQUAL	Passes if $Alpha \geq AlphaRef$
EQUAL	Passes if $Alpha = AlphaRef$
NOTEQUAL	Passes if $Alpha \neq AlphaRef$
ALWAYS	Always Passes

Alpha : the current alpha value
AlphaRef : the reference value

● Stencil Test

The stencil test conditionally eliminates a pixel based on the outcome of a comparison between the reference value and the value in the stencil buffer.

Formula :

Stencil function

NEVER	Always Fails
LESS	Passes if $(Ref \& Mask) < (Stbuf \& Mask)$
LEQUAL	Passes if $(Ref \& Mask) \leq (Stbuf \& Mask)$
GREATER	Passes if $(Ref \& Mask) > (Stbuf \& Mask)$
GEQUAL	Passes if $(Ref \& Mask) \geq (Stbuf \& Mask)$
EQUAL	Passes if $(Ref \& Mask) = (Stbuf \& Mask)$
NOTEQUAL	Passes if $(Ref \& Mask) \neq (Stbuf \& Mask)$
ALWAYS	Always Passes

Stencil Operation :

1. *fail* : stencil action when the stencil test fails
 2. *zfail* : stencil action when stencil test passes, but the depth test fails
 3. *zpass* : stencil action when the both the stencil test and depth test pass, or when the stencil test passes and depth test is not enabled
- The eight possible actions are as follows :

KEEP	Keep the current value	$\rightarrow Stnew = Stbuf$
ZERO	Sets the stencil buffer value to zero	$\rightarrow Stnew = 0x0$
REPLACE	Sets the stencil buffer value to <i>Ref</i>	$\rightarrow Stnew = StRef$
INCRSAT	Increments the current stencil buffer value when the current stencil buffer is not saturation	\rightarrow If $(Stbuf \neq Stmax)$ then $\{ Stnew = Stbuf + 1 \}$
DECRSAT	Decrements the current stencil buffer value when the current stencil buffer value is not saturation	\rightarrow If $(Stbuf \neq Stmin)$ then $\{ Stnew = Stbuf - 1 \}$
INVERT	Bitwise inverts the current stencil buffer value	$\rightarrow Stnew = \sim Stbuf$
INCR	Increments the current stencil buffer value (D3D only)	$\rightarrow Stnew = Stbuf + 1$
DECR	Decrements the current stencil buffer value (D3D only)	$\rightarrow Stnew = Stbuf - 1$

Ref : the reference value for stencil test
Mask : a mask that ANDed with both the reference value and the stencil buffer value
Stbuf : the current stencil buffer value

● Fog

Formula :

Normal Fog

Shade_Mode = Smooth	$Cout = Fog * (Csrc + Cs) + (1 - Fog) * Cfog$ Where Cfog and Fog is included in each vertex
Shade_Mode = Flat	$Cout = Fog * (Csrc + Cs) + (1 - Fog) * Cfog$ Where Cfog and Fog is included in a vertex

Constant Fog

$$Cout = Csrc + Cs + Cfog$$

Linear Fog

$$Fog = (End - 1/W) / (End - Start)$$

EXP Fog

$$fpow = Fogdensity * (1/w)$$

$$Fog = Exp (- fpow)$$

EXP2 Fog

$$fpow = Fogdensity * (1/w)$$

$$Fog = Exp (- fpow * fpow)$$

Range- based Fog

Cout : Output Color

Csrc : Source Color

Cs : Specula Color

Cfog : Fog Color

Fog : Fog Factor

Start: the near distance used in linear fog

end: the far distance used in linear fog

Fogdensity : the fog density used in both exponential fog equations (0.. 1)

● Alpha Blending

If *stippled alpha*, check alpha value against stippled alpha pattern, if test fails reject pixel.

Formula :

EGBLEqMode = 00 Cout = Csrc * BFsrc + Cdst * BFdst
 01 Cout = Csrc * BFsrc -- Cdst * BFdst
 10 Cout = Max (Csrc , Cdst)
 11 Cout = Min (Csrc , Cdst)

Cout : Output Color

Csrc : Source Color

Cdst : Destination Color

BFsrc : Blending Factor of Source Color

BFdst : Blending Factor of Destination Color

BFsrc (Default = Blend_One)

Value	Name	Blending Factor of R	Blending Factor of G	Blending Factor of B	Blending Factor of A
0	Blend_Zero	0	0	0	0
1	Blend_One	1	1	1	1
2	Blend_Src_Color	Rsrc	Gsrc	Bsrc	Asrc
3	Blend_Inv_Src_Color	1-Rsrc	1-Gsrc	1-Bsrc	1-Asrc
4	Blend_Src_Alpha	Asrc	Asrc	Asrc	Asrc
5	Blend_Inv_Src_Alpha	1-Asrc	1-Asrc	1-Asrc	1-Asrc
6	Blend_Dst_Alpha	Adst	Adst	Adst	Adst
7	Blend_Inv_Dst_Alpha	1-Adst	1-Adst	1-Adst	1-Adst
8	Blend_Dst_Color	Rdst	Gdst	Bdst	Adst
9	Blend_Inv_Dst_Color	1-Rdst	1-Gdst	1-Bdst	1-Adst
10	Blend_Src_Alpha_Sat	f	f	f	1
11	Blend_Both_Src_Alpha source blend factor destination blend factor	Asrc 1-Asrc	Asrc 1-Asrc	Asrc 1-Asrc	Asrc 1-Asrc
12	Blend_Both_Inv_Src_Alpha source blending factor destination blend factor	1-Asrc Asrc	1-Asrc Asrc	1-Asrc Asrc	1-Asrc Asrc
13	Constant_Color (OpenGL)	Rcst	Gcst	Bcst	Acst
14	One_Minus_Constant_Color (OpenGL)	1-Rcst	1-Gcst	1-Bcst	1-Acst
15	Constant_Alpha (OpenGL)	Acst	Acst	Acst	Acst
16	One_Minus_Constant_Alpha (OpenGL)	1-Acst	1-Acst	1-Acst	1-Acst

f = min (Asrc, 1-Adst)

BFdst (Default = Blend_Zero)

Value	Name	Blending Factor of R	Blending Factor of G	Blending Factor of B	Blending Factor of A
0	Blend_Zero	0	0	0	0
1	Blend_One	1	1	1	1
2	Blend_Src_Color	Rsrc	Gsrc	Bsrc	Asrc
3	Blend_Inv_Src_Color	1-Rsrc	1-Gsrc	1-Bsrc	1-Asrc
4	Blend_Src_Alpha	Asrc	Asrc	Asrc	Asrc
5	Blend_Inv_Src_Alpha	1-Asrc	1-Asrc	1-Asrc	1-Asrc
6	Blend_Dst_Alpha	Adst	Adst	Adst	Adst
7	Blend_Inv_Dst_Alpha	1-Adst	1-Adst	1-Adst	1-Adst
8	Blend_Dst_Color	Rdst	Gdst	Bdst	Adst
9	Blend_Inv_Dst_Color	1-Rdst	1-Gdst	1-Bdst	1-Adst
10	Blend_Src_Alpha_Sat	f	f	f	1
11	Constant_Color (OpenGL)	Rcst	Gcst	Bcst	Acst
12	One_Minus_Constant_Color (OpenGL)	1-Rcst	1-Gcst	1-Bcst	1-Acst
13	Constant_Alpha (OpenGL)	Acst	Acst	Acst	Acst
14	One_Minus_Constant_Alpha (OpenGL)	1-Acst	1-Acst	1-Acst	1-Acst

Rcst : Constant Color – R Value

● Raster Operation

Formula :

BLACK	Blackness
NOT_MERGE_PEN	$DPon = \sim (D \parallel P) = \sim D \& \sim P$
MASK_NOT_PEN	$DPna = \sim P \& D$
NOT_COPY_PEN	$Pn = \sim P$
MASK_PEN_NOT	$PDna = P \& \sim D$
NOT	$Dn = \sim D$
XOR_PEN	$DPx = \sim D \& P + D \& \sim P$
NOT_MASK_PEN	$DPan = \sim (D \& P) = \sim D \parallel \sim P$
MASK_PEN	$DPa = D \& P$
NOT_XOR_PEN	$DPxn = (D \& P) + (\sim D \& \sim P)$
NOP	D
MERGE_NOT_PEN	$DPno = D \parallel (\sim P)$
COPY_PEN	P
MERGE_PEN_NOT	$PDno = P \parallel (\sim D)$
MERGE_PEN	$DPo = D \parallel P$
WHITE	Whiteness

Registers

- Each Register occupy 16 bits.
- If only part of the register value should be modified, driver can write the modified byte or word to a appropriate I/O address.

Register Summary

	Name		Δ	L	P	Format	I/O(S)	I/O(G)
1.	RGPXaL	1B01h-1B00h	√	√	√	s[8].23	(I)	I
2.	RGPXaH	1B03h-1B02h	√	√	√	s[8].23	(I)	I
3.	RGPYaL	1B05h-1B04h	√	√	√	s[8].23	(I)	I
4.	RGPYaH	1B07h-1B06h	√	√	√	s[8].23	(I)	I
5.	RGPZaL	1B09h-1B08h	√	√	√	s[8].23	(I)	I
6.	RGPZaH	1B0Bh-1B0Ah	√	√	√	s[8].23	(I)	I
7.	RGPWaL	1B0Dh-1B0Ch	√	√	√	s[8].23	(I)	I
8.	RGPWaH	1B0Fh-1B0Eh	√	√	√	s[8].23	(I)	I
9.	RGPNXaL	1B11h-1B10h	√	√	√	s[8].23	(I)	I
10.	RGPNXaH	1B13h-1B12h	√	√	√	s[8].23	(I)	I
11.	RGPNYaL	1B15h-1B14h	√	√	√	s[8].23	(I)	I
12.	RGPNYaH	1B17h-1B16h	√	√	√	s[8].23	(I)	I
13.	RGPNZaL	1B19h-1B18h	√	√	√	s[8].23	(I)	I
14.	RGPNZaH	1B1Bh-1B1Ah	√	√	√	s[8].23	(I)	I
15.	Reserved	1B1Dh-1B1Ch						
16.	Reserved	1B1Fh-1B1Eh						
17.	RGPGBa/ RGPBAa/RGPRaL	1B21h-1B20h	√	√	√	8, 8, s[8].23	(I)	I
18.	RGPARa/ RGPRGa/RGPRaH	1B23h-1B22h	√	√	√	8, 8, s[8].23	(I)	I
19.	RGPGaL	1B25h-1B24h	√	√	√	s[8].23	(I)	I
20.	RGPGaH	1B27h-1B26h	√	√	√	s[8].23	(I)	I
21.	RGPBaL	1B29h-1B28h	√	√	√	s[8].23	(I)	I
22.	RGPBaH	1B2Bh-1B2Ah	√	√	√	s[8].23	(I)	I
23.	RGPAaL	1B2Dh-1B2Ch	√	√	√	s[8].23	(I)	I
24.	RGPAaH	1B2Fh-1B2Eh	√	√	√	s[8].23	(I)	I
25.	RGPSGBa/RGPSBAa/RGPSRaL	1B31h-1B30h	√	√	√	8, 8, s[8].23	(I)	I
26.	RGPSARa/RGPSRGa/RGPSRaH	1B33h-1B32h	√	√	√	8, 8, s[8].23	(I)	I
27.	RGPSGaL	1B35h-1B34h	√	√	√	s[8].23	(I)	I
28.	RGPSGaH	1B37h-1B36h	√	√	√	s[8].23	(I)	I
29.	RGPSBaL	1B39h-1B38h	√	√	√	s[8].23	(I)	I
30.	RGPSBaH	1B3Bh-1B3Ah	√	√	√	s[8].23	(I)	I
31.	RGPSFaL	1B3Dh-1B3Ch	√	√	√	s[8].23	(I)	I
32.	RGPSFaH	1B3Fh-1B3Eh	√	√	√	s[8].23	(I)	I
33.	RGPUaL	1B41h-1B40h	√	√	√	s[8].23	(I)	I
34.	RGPUaH	1B43h-1B42h	√	√	√	s[8].23	(I)	I
35.	RGPVAaL	1B45h-1B44h	√	√	√	s[8].23	(I)	I
36.	RGPVAaH	1B47h-1B46h	√	√	√	s[8].23	(I)	I
37.	RGPMaL	1B49h-1B48h	√	√	√	s[8].23	(I)	I
38.	RGPMaH	1B4Bh-1B4Ah	√	√	√	s[8].23	(I)	I
39.	RGPNaL	1B4Dh-1B4Ch	√	√	√	s[8].23	(I)	I
40.	RGPNaH	1B4Fh-1B4Eh	√	√	√	s[8].23	(I)	I
41.	RGPUBaL	1B51h-1B50h	√	√	√	s[8].23	(I)	I
42.	RGPUBaH	1B53h-1B52h	√	√	√	s[8].23	(I)	I
43.	RGPVBaL	1B55h-1B54h	√	√	√	s[8].23	(I)	I
44.	RGPVBaH	1B57h-1B56h	√	√	√	s[8].23	(I)	I
45.	RGPMBaL	1B59h-1B58h	√	√	√	s[8].23	(I)	I
46.	RGPMBaH	1B5Bh-1B5Ah	√	√	√	s[8].23	(I)	I
47.	RGPNBaL	1B5Dh-1B5Ch	√	√	√	s[8].23	(I)	I
48.	RGPNBaH	1B5Fh-1B5Eh	√	√	√	s[8].23	(I)	I
49.	RGPPSIZEL	1B81h-1B80h			√	s[8].23	(I)	I
50.	RGPPSIZEH	1B83h-1B82h			√	s[8].23	(I)	I
51.	Reserved	1BBFh-1B84h						
52.	RGXXaL		√	√	√	s[7].16	I	O
53.	RGXXaH		√	√	√	s[7].16	I	O
54.	RGXYaL		√	√	√	s[7].16	I	O
55.	RGXYaH		√	√	√	s[7].16	I	O
56.	RGXZaL		√	√	√	s[7].16	I	O
57.	RGXZaH		√	√	√	s[7].16	I	O
58.	RGXWaL		√	√	√	s[7].16	I	O
59.	RGXWaH		√	√	√	s[7].16	I	O
60.	RGXGBa		√	√	√	8,8	I	O
61.	RGXARa		√	√	√	8,8	I	O
62.	RGXSGBa		√	√	√	8,8	I	O

63.	RGXSFRa	√	√	√	8,8	I	O
64.	RGXUAaL	√	√	√	s[7].16	I	O
65.	RGXUAaH	√	√	√	s[7].16	I	O
66.	RGXVAaL	√	√	√	s[7].16	I	O
67.	RGXVAaH	√	√	√	s[7].16	I	O
68.	RGXUBaL	√	√	√	s[7].16	I	O
69.	RGXUBaH	√	√	√	s[7].16	I	O
70.	RGXVBaL	√	√	√	s[7].16	I	O
71.	RGXVBaH	√	√	√	s[7].16	I	O
72.	RGXPSIZEL			√	s[7].16	I	O
73.	RGXPSIZEH			√	s[7].16	I	O
74.	Reserved						
75.	RGXXbL	√	√		s[7].16	I	O
76.	RGXXbH	√	√		s[7].16	I	O
77.	RGXYbL	√	√		s[7].16	I	O
78.	RGXYbH	√	√		s[7].16	I	O
79.	RGXZbL	√	√		s[7].16	I	O
80.	RGXZbH	√	√		s[7].16	I	O
81.	RGXWbL	√	√		s[7].16	I	O
82.	RGXWbH	√	√		s[7].16	I	O
83.	RGXGBb	√	√		8,8	I	O
84.	RGXARb	√	√		8,8	I	O
85.	RGXSGBb	√	√		8,8	I	O
86.	RGXSFRb	√	√		8,8	I	O
87.	RGXUAbL	√	√		s[7].16	I	O
88.	RGXUAbH	√	√		s[7].16	I	O
89.	RGXVAbL	√	√		s[7].16	I	O
90.	RGXVAbH	√	√		s[7].16	I	O
91.	RGXUBbL	√	√		s[7].16	I	O
92.	RGXUBbH	√	√		s[7].16	I	O
93.	RGXVBbL	√	√		s[7].16	I	O
94.	RGXVBbH	√	√		s[7].16	I	O
95.	Reserved						
96.	RGXXcL	√			s[7].16	I	O
97.	RGXXcH	√			s[7].16	I	O
98.	RGXYcL	√			s[7].16	I	O
99.	RGXYcH	√			s[7].16	I	O
100.	RGXZcL	√			s[7].16	I	O
101.	RGXZcH	√			s[7].16	I	O
102.	RGXWcL	√			s[7].16	I	O
103.	RGXWcH	√			s[7].16	I	O
104.	RGXGBc	√			8,8	I	O
105.	RGXARc	√			8,8	I	O
106.	RGXSGBc	√			8,8	I	O
107.	RGXSFRc	√			8,8	I	O
108.	RGXUAcL	√			s[7].16	I	O
109.	RGXUAcH	√			s[7].16	I	O
110.	RGXVAcL	√			s[7].16	I	O
111.	RGXVAcH	√			s[7].16	I	O
112.	RGXUBcL	√			s[7].16	I	O
113.	RGXUBcH	√			s[7].16	I	O
114.	RGXVBcL	√			s[7].16	I	O
115.	RGXVBcH	√			s[7].16	I	O
116.	Reserved						
117.	EGSXst(EGSDrawDIR)	√	√	(EGSLMinst) √	s9.10	O	
118.	EGSXstdy	√	√	(EGSLdQ)	s9.10	O	
119.	EGSYst	√	√	(EGSLMajst) √	s9	O	
120.	EGSYtcnt	√	√	(EGSLcnt)	9	O	
121.	EGSYbcnt	√			9	O	
122.	EGSXend	√	√	(EGSMinend)	s9.10	O	
123.	EGSXendy	√	√	(EGSLdQ)	s9.10	O	
124.	EGSXbt	√	√		s9.10	O	
125.	EGSXbtdy	√	√		s9.10	O	
126.	EGSZyst	√	√		s[7].16	O	
127.	EGSZdx	√	√	(EGSZLMadQ)	s[7].16	O	
128.	EGSZdy	√	√	(EGSZLMidQ)	s[7].16	O	
129.	EGSAyst	√	√		s6.8	O	

130.	EGSAdx	√	√	(EGSALMadQ)	s6.8	O
131.	EGSAdy	√	√	(EGSALMidQ)	s6.8	O
132.	EGSRyyst	√	√		√ s5.8	O
133.	EGSRdx	√	√	(EGSRLMadQ)	s5.8	O
134.	EGSRdy	√	√	(EGSRLMidQ)	s5.8	O
135.	EGSGyyst	√	√		√ s6.8	O
136.	EGSGdx	√	√	(EGSGLMadQ)	s6.8	O
137.	EGSGdy	√	√	(EGSGLMidQ)	s6.8	O
138.	EGSByyst	√	√		√ s5.8	O
139.	EGSBdx	√	√	(EGSBLMadQ)	s5.8	O
140.	EGSBdy	√	√	(EGSBLMidQ)	s5.8	O
141.	EGSFyyst	√	√		√ s6.8	O
142.	EGSFdx	√	√	(EGSFLMadQ)	s6.8	O
143.	EGSFdy	√	√	(EGSFLMidQ)	s6.8	O
144.	EGSSRyyst	√	√		√ s5.8	O
145.	EGSSRdx	√	√	(EGSSRLMadQ)	s5.8	O
146.	EGSSRdy	√	√	(EGSSRLMidQ)	s5.8	O
147.	EGSSGyyst	√	√		√ s6.8	O
148.	EGSSGdx	√	√	(EGSSGLMadQ)	s6.8	O
149.	EGSSGdy	√	√	(EGSSGLMidQ)	s6.8	O
150.	EGSSByyst	√	√		√ s5.8	O
151.	EGSSBdx	√	√	(EGSSBLMadQ)	s5.8	O
152.	EGSSBdy	√	√	(EGSSBLMidQ)	s5.8	O
153.	Reserved					
154.	EGSWyyst	√	√		√ s[7].16	O
155.	EGSWdx	√	√	(EGSU0LMadQ)	s[7].16	O
156.	EGSWdy	√	√	(EGSU0LMidQ)	s[7].16	O
157.	EGSU0yyst	√	√		√ s[7].16	O
158.	EGSU0dx	√	√	(EGSU0LMadQ)	s[7].16	O
159.	EGSU0dy	√	√	(EGSU0LMidQ)	s[7].16	O
160.	EGSV0yyst	√	√		√ s[7].16	O
161.	EGSV0dx	√	√	(EGSV0LMadQ)	s[7].16	O
162.	EGSV0dy	√	√	(EGSV0LMidQ)	s[7].16	O
163.	EGSU1yyst	√	√		√ s[7].16	O
164.	EGSU1dx	√	√	(EGSU1LMadQ)	s[7].16	O
165.	EGSU1dy	√	√	(EGSU1LMidQ)	s[7].16	O
166.	EGSV1yyst	√	√		√ s[7].16	O
167.	EGSV1dx	√	√	(EGSV1LMadQ)	s[7].16	O
168.	EGSV1dy	√	√	(EGSV1LMidQ)	s[7].16	O
169.	EGSXshft	√	√	(EGSLMxshft)	s9.4	O
170.	EGSYshft	√	√	(EGSLMyshft)	s9.4	O
171.	EGSLlimit	√	√	(EGSLlimit)	s9	O
172.	EGSLRlimit	√	√	(EGSLRlimit)	s9	O

(I) : means Setup input ports when the G/L Engine is disable]
 (II) If data format is short, the input data is put in low double word.

Palatted Texture1

1C01h-1C00h	D[15:0]	(16)	EGTX1Index0ARGB Texture1 Index 0 RGB (Texture 1 Paletted 8 : Index 0) (Texture 1 Paletted 7 : Index 0) (Texture 1 Paletted 4 : Index 0)
1C03h-1C02h	D[15:0]	(16)	EGTX1Index1ARGB Texture1 Index 1 RGB (Texture 1 Paletted 8 : Index 1) (Texture 1 Paletted 7 : Index 1) (Texture 1 Paletted 4 : Index 1)
1C2Fh-1C04h	...		
1C31h-1C30h	D[15:0]	(16)	EGTX1Index16ARGB Texture1 Index 16 RGB (Texture 1 Paletted 8 : Index 16) (Texture 1 Paletted 7 : Index 16)
1CFFh-1C32h	...		
1D01h-1D00h	D[15:0]	(16)	EGTX1Index128ARGB Texture1 Index 128 RGB (Texture 1 Paletted 8 : Index 128) (Texture 1 Paletted 7 : Index 0)
1D03h-1D02h	D[15:0]	(16)	EGTX1Index129ARGB Texture1 Index 129 RGB (Texture 1 Paletted 8 : Index 129)
1D2Fh-1D04h	...		
1D31h-1D30h	D[15:0]	(16)	EGTX1Index144ARGB Texture1 Index 144 RGB (Texture 1 Paletted 8 : Index 144)
1DFDh-1D32h	...		
1DFFh-1DFEh	D[15:0]	(16)	EGTX1Index255ARGB Texture1 Index 255 RGB (Texture 1 Paletted 8 : Index 255)

Vertex Initial Value Setting

1E03h-1E00h	D[31:0]	(32)	RGXPosDefX (Vertex Position : X s[8].23 → s[7].16 by Hardware)
1E07h-1E04h	D[31:0]	(32)	RGXPosDefY (Vertex Position : Y s[8].23 → s[7].16 by Hardware)
1E0Bh-1E08h	D[31:0]	(32)	RGXPosDefZ (Vertex Position : Z s[8].23 → s[7].16 by Hardware)
1E0Fh-1E0Ch	D[31:0]	(32)	RGXPosDefW (Vertex Position : W s[8].23 → s[7].16 by Hardware)
1E13h-1E10h	D[31:0]	(32)	RGXNormDefX (Vertex Normal : X s[8].23 → s[7].16 by Hardware)
1E17h-1E14h	D[31:0]	(32)	RGXNormDefY (Vertex Normal : Y s[8].23 → s[7].16 by Hardware)
1E1Bh-1E18h	D[31:0]	(32)	RGXNormDefZ (Vertex Normal : Z s[8].23 → s[7].16 by Hardware)
1E1Fh-1E1Ch	Reserved		
1E23h-1E20h	D[31:0]	(32)	RGXDiffDef (Vertex diffuse : ARGB 8888 → 8666 by Hardware)
1E27h-1E24h	D[31:0]	(32)	RGXSpecDef (Vertex diffuse : ARGB 8888 → 8666 by Hardware)
1E2Bh-1E28h	Reserved		
1E2Fh-1E2Ch	Reserved		
1E33h-1E30h	D[31:0]	(32)	RGXTxADefU (Vertex Texture A : U s[8].23 → s[7].16 by Hardware)
1E37h-1E34h	D[31:0]	(32)	RGXTxADefV (Vertex Texture A : V s[8].23 → s[7].16 by Hardware)
1E3Bh-1E38h	D[31:0]	(32)	RGXTxADefW (Vertex Texture A : W s[8].23 → s[7].16 by Hardware)
1E3Fh-1E3Ch	D[31:0]	(32)	RGXTxADefQ (Vertex Texture A : Q s[8].23 → s[7].16 by Hardware)
1E43h-1E40h	D[31:0]	(32)	RGXTxBDefU (Vertex Texture A : U s[8].23 → s[7].16 by Hardware)
1E47h-1E44h	D[31:0]	(32)	RGXTxBDefV (Vertex Texture A : V s[8].23 → s[7].16 by Hardware)
1E4Bh-1E48h	D[31:0]	(32)	RGXTxBDefW (Vertex Texture A : W s[8].23 → s[7].16 by Hardware)
1E4Fh-1E4Ch	D[31:0]	(32)	RGXTxBDefQ (Vertex Texture A : Q s[8].23 → s[7].16 by Hardware)

Stream Table Setting

1F03h-1F00h	D[31:8]	(24)	Reserved
	D[7:0]	(8)	MGVStreamActive (Vertex Table Active Bits[7:0]) bit unit : stream
1F0Bh-1F04h	Reserved		
1F0Fh-1F0Ch	D[31:11]	(21)	Reserved
	D[10:8]	(3)	MGVLastStrmNum (Last stream Number)
	D[7:3]	(5)	Reserved
	D[2]	(1)	MGVen8bitStrmIndex (Vertex Stream Index 8 bits Enable : 0 for 16 bits index; 1 for 8 bits index;)
	D[1]	(1)	MGVenStrmIndexMode (Vertex Stream Index Mode Enable : 0 for Disable; 1 for Enable;)
	D[0]	(1)	MGVtxColorfmt (Vertex color data format : 0 for ARGB; 1 for ABGR (GL : RGBA))
1F13h-1F10h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm0Stride (Vertex stream 0 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm0DataDim (Vertex stream 0 : Data Dimension) 00 : 1D (ex : x); 01 : 2D (ex : x, y);

	D[7]	(1)	10 : 3D (ex : x, y, z); 11 : 4D (ex : x, y, z, w);
	D[6:4]	(3)	Reserved MGVStrm0DataType (Vertex stream 0 : Data Type) 000 : for float (s[8].23); 001 : for short (s15); 010 : for fixed (s15.16); 011 : for signed byte (s7); 100 : for unsigned byte (8);
	D[3:0]	(4)	MGVStrm0ArrayType (Vertex stream 0 : Array Type) 0000 : for Position 0001 : for Normal 0010 : for Diffuse Color 0011 : for Specular Color 0100 : for Texture A 0101 : for Texture B 0110 : for Texture C 0111 : for Texture D 1000 : for Point Size
1F17h-1F14h	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm0BAS (Vertex stream 0 : Base (byte units))
1F1Bh-1F18h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm1Stride (Vertex stream 1 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm1DataDim (Vertex stream 1 : Data Dimension)
	D[7]	(1)	Reserved
	D[6:4]	(3)	MGVStrm1DataType (Vertex stream 1 : Data Type)
	D[3:0]	(4)	MGVStrm1ArrayType (Vertex stream 1 : Array Type)
1F1Fh-1F1Ch	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm1BAS (Vertex stream 1 : Base (byte units))
1F23h-1F20h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm2Stride (Vertex stream 2 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm2DataDim (Vertex stream 2 : Data Dimension)
	D[7]	(1)	Reserved
	D[6:4]	(3)	MGVStrm2DataType (Vertex stream 2 : Data Type)
	D[3:0]	(4)	MGVStrm2ArrayType (Vertex stream 2 : Array Type)
1F27h-1F24h	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm2BAS (Vertex stream 2 : Base (byte units))
1F2Bh-1F28h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm3Stride (Vertex stream 3 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm3DataDim (Vertex stream 3 : Data Dimension)
	D[7]	(1)	Reserved
	D[6:4]	(3)	MGVStrm3DataType (Vertex stream 3 : Data Type)
	D[3:0]	(4)	MGVStrm3ArrayType (Vertex stream 3 : Array Type)
1F2Fh-1F2Ch	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm3BAS (Vertex stream 3 : Base (byte units))
1F33h-1F30h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm4Stride (Vertex stream 4 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm4DataDim (Vertex stream 4 : Data Dimension)
	D[7]	(1)	Reserved
	D[6:4]	(3)	MGVStrm4DataType (Vertex stream 4 : Data Type)
	D[3:0]	(4)	MGVStrm4ArrayType (Vertex stream 4 : Array Type)
1F37h-1F34h	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm4BAS (Vertex stream 4 : Base (byte units))
1F3Bh-1F38h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm5Stride (Vertex stream 5 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm5DataDim (Vertex stream 5 : Data Dimension)
	D[7]	(1)	Reserved
	D[6:4]	(3)	MGVStrm5DataType (Vertex stream 5 : Data Type)
	D[3:0]	(4)	MGVStrm5ArrayType (Vertex stream 5 : Array Type)
1F3Fh-1F3Ch	D[31:23]	(9)	Reserved
	D[22:0]	(23)	MGVStrm5BAS (Vertex stream 5 : Base (byte units))
1F43h-1F40h	D[31:24]	(8)	Reserved
	D[23:16]	(8)	MGVStrm6Stride (Vertex stream 6 : Stride (byte units))
	D[15:10]	(6)	Reserved
	D[9:8]	(2)	MGVStrm6DataDim (Vertex stream 6 : Data Dimension)

	D[7]	(1)	Reserved	
	D[6:4]	(3)	MGVStrm6DataType	(Vertex stream 6 : Data Type)
	D[3:0]	(4)	MGVStrm6ArrayType	(Vertex stream 6 : Array Type)
1F47h-1F44h	D[31:23]	(9)	Reserved	
	D[22:0]	(23)	MGVStrm6BAS	(Vertex stream 6 : Base (byte units))
1F4Bh-1F48h	D[31:24]	(8)	Reserved	
	D[23:16]	(8)	MGVStrm7Stride	(Vertex stream 7 : Stride (byte units))
	D[15:10]	(6)	Reserved	
	D[9:8]	(2)	MGVStrm7DataDim	(Vertex stream 7 : Data Dimension)
	D[7]	(1)	Reserved	
	D[6:4]	(3)	MGVStrm7DataType	(Vertex stream 7 : Data Type)
	D[3:0]	(4)	MGVStrm7ArrayType	(Vertex stream 7 : Array Type)
1F4Fh-1F4Ch	D[31:23]	(9)	Reserved	
	D[22:0]	(23)	MGVStrm7BAS	(Vertex stream 7 : Base (byte units))
2002Fh-1F50h	Reserved			

Command Buffer Mode Setting

2033h-2030h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	MGStrmIndexMDBAS	(Index buffer Base Address; unit : word)
	D[0]	(1)	Reserved	
	Stream Index Mode index buffer base = MGStrmIndexMDBAS x 2 bytes			
2037h-2034h	D[31:28]	(4)	Reserved	
	D[27:0]	(28)	Reserved for RGDWNum	(Read Port : The Number of remained Word)
203Bh-2038h	D[31:28]	(4)	Reserved for MGVextReqS	(The Vertex Request Threshold)
	D[27:0]	(28)	Reserved for MGTDWNum	(The Number of Total Word)
203Dh-203Ch	D[15:2]	(14)	Reserved	
	D[1:0]	(2)	MGBufCBMFire	(Write for Command Buffers and Stream Index Mode Pre fire) 00 : for Buffer Mode fire 11 : for Stream Index Mode fire
203Fh-203Eh	D[15:2]	(14)	Reserved	
	D[1:0]	(2)	MGBufCMSFire	(Write for Command Mode Setup fire) 00 : for Buffer Mode fire 01 : for Index Mode fire 10 : for Packet Mode fire 11 : for Stream Index Mode fire

Parsing Setting

2043h-2040h	D[31:28]	(4)	RGPVDTexCoordSet	(Vertex Data Texture Coordinate Sets before Texture Transform)
	D[27:14]	(14)	Reserved	
	D[13:12]	(2)	RGPVDTexCnt	(Vertex Data Texture Count : only for Parser)
	D[11:0]	(12)	Reserved	
2047h-2044h	D[31]	(1)	Reserved for EGIndAddrMode	(AGP Index Address Mode)
	D[30:28]	(3)	Reserved	
	D[27:20]	(8)	RGPDVNum	(The Number of Byte per Vertex)
	D[19:0]	(20)	RGTVerNum	(The Total Vertex Number per list)
204Fh-2048h	Reserved			

Primitive Setting

2051h-2050h	D[15:14]	(2)	Reserved	
	D[13:12]	(2)	EGPCCWFillMode	(CCW Primitive Fill Mode)
	D[11:10]	(2)	EGT0FROM	(Texture 0 Vertex Come Form)
	D[9:8]	(2)	EGT1FROM	(Texture 1 Vertex Come From)
	D[7:6]	(2)	Reserved for EGT2FROM	(Texture 2 Vertex Come Form)
	D[5:4]	(2)	Reserved for EGT3FROM	(Texture 3 Vertex Come From)
	D[3:2]	(2)	EGParMode	(Parsor Mode setting)
	D[1:0]	(2)	EGFillMode	(Primitive fill Mode)
2053h-2052h	D[15]	(1)	Reserved	
	D[14]	(1)	Reserved for EGenClrGxL	(Clear Geometry & Lighting engine Enable)
	D[13]	(1)	Reserved for EGenGxL	(Geometry & Lighting engine Enable)
	D[12:8]	(5)	Reserved for EGSETFIRE	(Set 3D Engine Fire Position)
	D[7:6]	(2)	Reserved for EGAGPCMTYPE	(AGP Command Mode Type)
	D[5]	(1)	Reserved for EGLLPixel	(Last Pixel Flg of Line)
	D[4:0]	(5)	EGPDTYPE	(Data Type)

Engine Fire & Status Register

2055h-2054h	D[15:0]	(16)	EGSTATUSA	(Read for 3D Engine Status A)
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2057h-2056h	D[15:0]	(16)	EGSTATUSB	(Read for 3D Engine Status B)
2059h-2058h	D[15:0]	(16)	EGFIRE	(Write for 3D Engine Fire)
			Write any data to this address will force a 3D Engine fire.	
	D[15:0]	(16)	EGSTATUSC	(Read for 3D Engine Status C)
205Bh-205Ah	D[15:0]	(16)	EGSTATUSD	(Read for 3D Engine Status D)

Enable Setting

2103h-2100h	D[31]	(1)	Reserved for	EGTXWCFVD	(Texture D Wrap Correction Flag of V)	
	D[30]	(1)	Reserved for	EGTXWCFUD	(Texture D Wrap Correction Flag of U)	
	D[29]	(1)	Reserved for	EGTXWCFVC	(Texture C Wrap Correction Flag of V)	
	D[28]	(1)	Reserved for	EGTXWCFUC	(Texture C Wrap Correction Flag of U)	
	D[27]	(1)	Reserved for	Reserved for	EGTXWCFVB (Texture B Wrap Correction Flag of V)	
	D[26]	(1)	Reserved for	EGTXWCFUB	(Texture B Wrap Correction Flag of U)	
	D[25]	(1)	Reserved for	EGTXWCFVA	(Texture A Wrap Correction Flag of V)	
	D[24]	(1)	Reserved for	EGTXWCFUA	(Texture A Wrap Correction Flag of U)	
	D[22]	(1)	EGenStT		(Stencil Test Enable)	
	D[20]	(1)	EGenZW		(Z Write Enable)	
	D[19]	(1)	EGenZT		(Z Test Enable)	
	D[18]	(1)	Reserved for	EGenNoTriAli	(No Triangle Alignment Enable)	
	D[17]	(1)	EGenAT		(Alpha Test Enable)	
	D[16]	(1)	EGenZnoClear		(Z no Clear Enable)	
	D[15]	(1)	EGenTXSwiz		(Texture Swizzle Enable)	
	D[14:12]	(3)	EGTXNUM		(The Number of Texture)	
	D[11]	(1)	Reserved for	EGenCull	(Backface Cull Enable)	
	D[10]	(1)	EGenTXMP		(Texture Mapping Enable)	
	D[9]	(1)	EGenTXPP		(Texture Perspective Enable)	
	D[8]	(1)	Reserved for	EGenLNLTurboMode	(Trilinear turbo Mode Enable)	
	D[7]	(1)	EGenTxCache		(Texture Cache Enable)	
	D[6]	(1)	EGenTxCLRCache		(Clear Texture Cache Enable)	
	D[5]	(1)	EGenStBuf		(Stencil Buffer Enable)	
	D[4]	(1)	EGenSPEC		(Specula Enable)	
	D[3]	(1)	EGenFOG		(Fog Enable)	
	D[2]	(1)	EGenAALine		(Line AA Enable)	
	D[1]	(1)	EGenBLEND		(Blending Enable)	
	D[0]	(1)	EGenDITH		(Dither Enable)	
	2107h-2104h	D[31]	(1)	Reserved for	EGenTX3TR	(Texture 3 Transparency Enable)
		D[30]	(1)	Reserved for	EGenTX2TR	(Texture 2 Transparency Enable)
D[29]		(1)	EGenTX1TR		(Texture 1 Transparency Enable)	
D[28]		(1)	EGenTX0TR		(Texture 0 Transparency Enable)	
D[27]		(1)	Reserved			
D[26]		(1)	Reserved for	EGenYLowR	(Y Low Resolution Enable)	
D[25]		(1)	Reserved for	EGenWNorm	(W Normalize Enable)	
D[24]		(1)	EGenZBias		(Z Bias Enable)	
D[23]		(1)	EGenCWrMask		(Color Write Mask Enable)	
D[22]		(1)	EGenZWrMask		(Z Mask Write Mask Enable)	
D[21]		(1)	Reserved for	EGenPloygOffset	(Polygon Offset Enable)	
D[20]		(1)	EGenNoZMerge		(No Z Merge Enable)	
D[19]		(1)	EGenMIPBS		(Texture MIPMAP Bias Enable)	
D[18]		(1)	EGenUseSpec		(Use Specular Enable)	
D[17]		(1)	EGenTXBl		(Texture Blending Enable)	
D[16]		(1)	Reserved for	EGenXYZerCnt	(X Z Zero count Enable)	
D[15]		(1)	EGenPloyStipple		(Ploygon Stipple Line Enable)	
D[14]		(1)	EGenAAPoint		(AA Point Enable)	
D[13]		(1)	EGenAALineAT		(AA Point or AA Line Alpha Test Enable)	
D[12]		(1)	EGenStereo		(Stereo enable)	
D[11]		(1)	EGenLineStipple		(Line Stipple Enable)	
D[10]		(1)	EGenStWrMask		(Stencil Write Mask Enable)	
D[9]		(1)	EGenInvDITH		(Inverse Dither Enable)	
D[8]		(1)	EGenxturbotri		(Turbo Trilinear Enable)	
D[7]		(1)	Reserved			
D[6]		(1)	Reserved			
D[5]		(1)	Reserved			
D[4]		(1)	Reserved			
D[3]		(1)	Reserved			
D[2]		(1)	Reserved			
D[1]	(1)	EGTX1magminSWflg		(Texture 1 OpenGL mag or min flag Enable)		
D[0]	(1)	EGTX0magminSWflg		(Texture 0 OpenGL mag or min flag Enable)		

Z Setting

210Bh-2108h	D[31:27] (5) Reserved D[26:20] (7) EGZBUFFM (Z Buffer Data Format) D[19] (1) Reserved D[18:16] (3) EGZTMD (Z Test Mode) D[15:14] (2) Reserved D[13:10] (4) Reserved D[9:0] (10) EGZPIT (Z Buffer Pitch : Multiple of 2 Bytes) Z Buffer Pitch = EGZPIT x 2 bytes
210D-210Ch	D[15:0] (16) EGZWrMASK (Z Write Mask)
210Fh-210Eh	D[15:0] (16) EGZdstInitValue (Z initial Value, format ia same as the Z format)
2113h-2110h	D[31:23] (9) Reserved D[22:1] (22) EGZBAS (Z Buffer Base Address : Multiple of 2 Bytes) D[0] (1) Reserved Z Buffer Base Address = EGZBAS x 2 bytes

Alpha

2117h-2114h	D[31:11] (21) Reserved D[10:8] (3) EGATMD (Alpha Test Mode) D[7:2] (6) EGAREF (Alpha Reference Value) D[1:0] (2) Reserved
211Fh-2118h	Reserved

Destination0 Setting

2123h-2120h	D[31:28] (4) Reserved D[27:24] (4) EGDSTOROP (Destination 0 [L] Raster Operation) D[23] (1) Reserved D[22:16] (7) EGDSTOCFM (Destination 0 [L] Color Format) D[15:10] (6) Reserved D[9:0] (10) EGDSTOPIT (Destination 0 [L] Color Surface Pitch : Multiple of 2 Bytes) Destination 0 [L] Color Surface Pitch = EGDSTOPIT x 2 bytes
2127h-2124h	D[31:16] (16) Reserved D[15:0] (16) EGD0CWrMASK (Destination 0 [L] Color Write Mask)
212Bh-2128h	D[31:23] (9) Reserved D[22:1] (22) EGDST0BAS (Destination 0 [L] Color Surface Base Address: Multiple of 2 Bytes) D[0] (1) Reserved Destination 0 [L] Color Surface Base Addr = EGDST0BAS x 2 bytes

Destination1 Setting

2137h-212Ch	Reserved
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AA Line & AA Point & Line Atipple & Polygon Stipple Setting

2139h-2138h	D[15] (1) EGPolyStippleTxDir (Stipple mode 0: Vdy = -1/32; 1: Vdy= 1/32) Udx=1/32 D[14:9] (6) Reserved D[8] (1) EGStippleTxSel (Polygon stipple or Line stipple Texture Select) D[7:5] (3) Reserved D[4] (1) EGAALineTxSel (AA Line Texture Select) (0: Tex0; 1: Tex1) D[3:1] (3) Reserved D[0] (1) EGAAPointTxSel (AA Point Texture Select) (0: Tex0; 1: Tex1)
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Fog Setting

213Fh-213Ch	D[31:28] (4) Reserved D[27] (1) EGFOGZT (Fog with Z lookup Table) D[26:24] (3) EGFOGMD (Fog Mode) D[23:0] (24) EGFOGC (Fog Color Register) D[23:19] (5) EGFOGCR (Fog Color Register – R channel) D[18:16] (3) Reserved D[15:10] (6) EGFOGCG (Fog Color Register – G channel) D[9:8] (2) Reserved D[7:3] (5) EGFOGCB (Fog Color Register – B channel) D[2:0] (3) Reserved
2143h-2140h	D[31:19] (13) Reserved D[18:0] (19) EGFLEND (Far Distance used in Linear Fog) (s[7].10)
2147h-2144h	D[31:18] (13) Reserved D[17:0] (18) EGFLINVD (Inverse distance in Linear Fog) (s[7].10)
214Bh-2148h	D[31:24] (8) Reserved for EGFOGF (Fog factor for Fog Test) D[23:18] (6) Reserved D[17:0] (18) EGFDENST (Fog Density) (s[7].10 floating)
214Fh-214Ch	D[31:0] (32) Reserved

Stencil Setting

2153h-2150h	D[31:30]	(2)	Reserved	
	D[29:28]	(2)	EGStBUFFM	(Stencil Buffer Color format)
	D[27]	(1)	Reserved	
	D[26:24]	(3)	EGStTMD	(Stencil Test Mode)
	D[23:16]	(8)	Reserved	
	D[15:8]	(8)	EGStREF	(Stencil Reference Value)
2157h-2154h	D[7:0]	(8)	EGStMASK	(Stencil Mask Value)
	D[31:24]	(8)	EGStWrMASK	(Stencil Write Mask)
	D[23]	(1)	Reserved	
	D[22:20]	(3)	EGStFAIL	(Stencil Test Fail Operation)
	D[19]	(1)	Reserved	
	D[18:16]	(3)	EGStZFAIL	(Stencil Test Pass and Z Test Fail Operation)
	D[15]	(1)	Reserved	
	D[14:12]	(3)	EGStZPASS	(Stencil Test Pass and Z Test Pass Operation)
	D[11:10]	(2)	Reserved	
	D[9:0]	(10)	EGStPIT	(Stencil Buffer Pitch : Multiple of 2 Bytes)
Stencil Buffer Pitch = EGStPIT x 2 bytes				
215Bh-2158h	<i>Stencil Buffer in Local Memory</i>			
	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGStBAS	(Stencil Buffer Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
Stencil Buffer Base Address = EGStBAS x 2 bytes				

Miscellaneous Setting

215Fh-215Ch	D[31]	(1)	Reserved	
	D[30]	(1)	EGenABLSepSet	(Enable Alpha Blending Separate Setting)
	D[29:27]	(3)	EGABLEqMode	(Alpha Blending Equation Mode)
	D[26:24]	(3)	EGCBLEqMode	(Color Blending Equation Mode)
	D[23:21]	(3)	Reserved	
	D[20:12]	(9)	EGDDstAl	(Default Destination Alpha)
	D[11:9]	(3)	Reserved	
	D[8:4]	(5)	EGCBLSRC	(Color Source Blending Mode)
	D[3:0]	(4)	EGCBDST	(Color Destination Blending Mode)
	2163h-2160h	D[31:26]	(6)	EGBLCstCA
D[25:24]		(2)	Reserved	
D[23:19]		(5)	EGBLCstCR	(Alpha Blending Constant Color – R value) (5)
D[18:16]		(3)	Reserved	
D[15:10]		(6)	EGBLCstCG	(Alpha Blending Constant Color – G value) (6)
D[9:8]		(2)	Reserved	
D[7:3]		(5)	EGBLCstCB	(Alpha Blending Constant Color – B value) (5)
2167h-2164h	D[2:0]	(3)	Reserved	
	D[31:26]	(6)	Reserved	
	D[25:16]	(10)	EGCLTop	(Clipping Value for Top)
	D[15:10]	(6)	Reserved	
216Bh-2168h	D[9:0]	(10)	EGCLBot	(Clipping Value for Bottom)
	D[31:26]	(6)	Reserved	
	D[25:16]	(10)	EGCLLeft	(Clipping Value for Left)
216Fh-216Ch	D[15:10]	(6)	Reserved	
	D[9:0]	(10)	EGCLrgt	(Clipping Value for Right)
	D[31:9]	(23)	Reserved	
D[8:4]	(5)	EGABLSRC	(Alpha Source Blending Mode)	
D[3:0]	(4)	EGABLDST	(Alpha Destination Blending Mode)	
2173h-2170h	D[31:0]	(32)	EGRerSRegA	(Reserved for Software Register A)
2177h-2174h	D[31:0]	(32)	EGRerSRegB	(Reserved for Software Register B)
217Bh-2178h	D[31:0]	(32)	EGRerSRegC	(Reserved for Software Register C)
217Fh-217Ch	D[31:0]	(32)	EGRerSRegD	(Reserved for Software Register D)

Readback Status Register

2183h-2180h	D[31:0]	(32)	Reserved for EGSZsum	(Z Sum for Stereo Read back)
2187h-2184h	D[31:0]	(32)	Reserved for EGSZmax	(Z Maximum for Stereo Read back)
218Bh-2188h	D[31:0]	(32)	Reserved for EGSZmin	(Z Meanimum for Stereo Read back)
218Fh-218Ch	D[31:26]	(6)	Reserved	
	D[25:0]	(26)	Reserved for EGSZfirecnt	(Z Fire Counter for Stereo Read back)

Arbiter Control Register & Z Adjustment

2193h-2190h	D[31:24]	(8)	Reserved for EGTxIdleTim	(Texture idle Timer)
	D[23:16]	(8)	Reserved for EGTxGndTim	(Texture Grand Timer)
	D[15:8]	(8)	Reserved for EGZrThrhdTim	(Z Read Threshold Timer)

	D[7:0]	(8)	Reserved for EGZwThrhdTim	(Z Write Threshold Timer)
2197h-2194h	D[31:16]	(16)	Reserved	
	D[15:8]	(8)	Reserved for EGCrThrhdTim	(Color Read Threshold Timer)
	D[7:0]	(8)	Reserved for EGCwThrhdTim	(Color Write Threshold Timer)
219Bh-2198h	D[31]	(1)	Reserved	
	D[30:28]	(3)	EGStrRqThrhd	(Z Read Request Threshold)
	D[27]	(1)	Reserved	
	D[26:24]	(3)	EGStwRqThrhd	(Z Write Request Threshold)
	D[23]	(1)	Reserved	
	D[22:20]	(3)	EGVqRqThrhd	(Vertex Read Request Threshold)
	D[19]	(1)	Reserved	
	D[18:16]	(3)	EGTxRqThrhd	(Texture Request Threshold)
	D[15]	(1)	Reserved	
	D[14:12]	(3)	EGCrRqThrhd	(Color Read Request Threshold)
	D[11]	(1)	Reserved	
	D[10:8]	(3)	EGCwRqThrhd	(Color Write Request Threshold)
	D[7]	(1)	Reserved	
	D[6:4]	(3)	EGZrRqThrhd	(Z Read Request Threshold)
	D[3]	(1)	Reserved	
	D[2:0]	(3)	EGZwRqThrhd	(Z Write Request Threshold)
219Fh-219Ch	Reserved			

Texture0 Setting

21A3h-21A0h	D[31:24]	(8)	EGTX0FM	(Texture0 Format)
	D[23:16]	(8)	EGTX0MPMD	(Texture0 Mapping Mode)
	D[15]	(1)	EGTX0SwizFlg	(Texture0 Texture swizzle flag)
	D[14]	(1)	Reserved for EGTX0CubMPMD	(Texture0 Cubic Mapping Mode)
	D[13]	(1)	Reserved for EGTX0Cubflg	(Texture0 Cubic Mapping flag)
	D[12]	(1)	Reserved for EGTX0UVPOLAR	(Set Signed or Unsigned Texture0 of YUV Format)
	D[11:8]	(4)	EGTX0LV	(Number of Texture0's Level)
	D[7:2]	(6)	Reserved	
	D[1:0]	(2)	EGTXBlStNum	(Texture Blending Stage number)
21A7h-21A4h	D[31:20]	(12)	Reserved for EGTX0INSY	(Level(i) of Texture Memory Locate in System Memory or not for Texture0)
	D[19:18]	(2)	EGTX0FLMAX	(Texture0 Magnified Filter Mode)
	D[17:15]	(3)	EGTX0FLMIF	(Texture0 Minified Filter Mode)
	D[14:5]	(10)	EGTX0MLBS	(Texture0 Mip Lod Bias as 2's complement s4.5)
	D[4]	(1)	Reserved	
	D[3:0]	(4)	Reserved for EGTX0ANISTRPY	(Texture0 Anisotropy Filtering Ratiot Limit)
21ABh-21A8h	D[31:30]	(2)	EGTXTRSMOD	(Texture 0 and 1 Transparency Mode)
	D[29]	(1)	Reserved	
	D[28:24]	(5)	EGTXTRSHratio	(Ratio for texture0 and 1 transparence test)
	D[23:21]	(3)	Reserved	
	D[20:12]	(9)	EGTX0W	(Texture0's Width of Level0)
	D[11:9]	(3)	Reserved	
	D[8:0]	(9)	EGTX0H	(Texture0's Height of Level0)
21AFh-21ACh	D[31:26]	(6)	EGTX0TRSHA	(Texture0 A-channel Transparency High Treshold Value)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX0TRSHR	(Texture0 R-channel Transparency High Treshold Value)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX0TRSHG	(Texture0 G-channel Transparency High Treshold Value)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX0TRSHB	(Texture0 B-channel Transparency High Treshold Value)
	D[2:0]	(3)	Reserved	
21B3h-21B0h	D[31:26]	(6)	EGTX0TRSLA	(Texture0 A-channel Transparency Low Treshold Value)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX0TRSLR	(Texture0 R-channel Transparency Low Treshold Value)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX0TRSLG	(Texture0 G-channel Transparency Low Treshold Value)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX0TRSLB	(Texture0 B-channel Transparency Low Treshold Value)
	D[2:0]	(3)	Reserved	
21B7h-21B4h	D[31:26]	(6)	EGTX0CTBA	(A-channel of Border Color for Texture0)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX0CTBR	(R-channel of Border Color for Texture0)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX0CTBG	(G-channel of Border Color for Texture0)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX0CTBB	(B-channel of Border Color for Texture0)

	D[2:0]	(3)	Reserved	
21BBh-21B8h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L0BAS Reserved	(Texture0 Level 0 Base Address : Multiple of 2 Bytes)
21BFh-21BCh	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L1BAS Reserved	(Texture0 Level1 Base Address : Multiple of 2 Bytes)
21C3h-21C0h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L2BAS Reserved	(Texture0 Level 2 Base Address : Multiple of 2 Bytes)
21C7h-2104h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L3BAS Reserved	(Texture0 Level 3 Base Address : Multiple of 2 Bytes)
21CBh-21C8h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L4BAS Reserved	(Texture0 Level 4 Base Address : Multiple of 2 Bytes)
21CFh-21CCh	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L5BAS Reserved	(Texture0 Level 5 Base Address : Multiple of 2 Bytes)
21D3h-21D0h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L6BAS Reserved	(Texture0 Level 6 Base Address : Multiple of 2 Bytes)
21D7h-21D4h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L7BAS Reserved	(Texture0 Level 7 Base Address : Multiple of 2 Bytes)
21DBh-21D8h	D[31:23] D[22:1] D[0]	(9) (22) (1)	Reserved EGTX0L8BAS Reserved	(Texture0 Level 8 Base Address : Multiple of 2 Bytes)
21DFh-21DCh	D[31:1] D[0]	(31) (1)	Reserved for EGTX0L9BAS Reserved	(Texture0 Level 9 Base Address : Multiple of 2 Bytes)
21E3h-21E0h	D[31:1] D[0]	(31) (1)	Reserved for EGTX0L10BAS Reserved	(Texture0 Level 10 Base Address : Multiple of 2 Bytes)
21E7h-21E4h	D[31:1] D[0]	(31) (1)	Reserved for EGTX0L11BAS Reserved	(Texture0 Level 11 Base Address : Multiple of 2 Bytes)
21EBh-21E8h	D[31:28] D[27:16] D[15:12] D[11:0]	(4) (12) (4) (12)	Reserved EGTX0L1PITCH Reserved EGTX0L0PITCH	(Texture0 Level 1 Pitch) Pitch = $D[23:16] * 2^D[27:24]$ (Texture0 Level 0 Pitch) Pitch = $D[7:0] * 2^D[11:8]$
21EFh-21ECh	D[31:28] D[27:16] D[15:12] D[11:0]	(4) (12) (4) (12)	Reserved EGTX0L3PITCH Reserved EGTX0L2PITCH	(Texture0 Level 3 Pitch) Pitch = $D[23:16] * 2^D[27:24]$ (Texture0 Level 2 Pitch) Pitch = $D[7:0] * 2^D[11:8]$
21F3h-21F0h	D[31:28] D[27:16] D[15:12] D[11:0]	(4) (12) (4) (12)	Reserved EGTX0L5PITCH Reserved EGTX0L4PITCH	(Texture0 Level 5 Pitch) Pitch = $D[23:16] * 2^D[27:24]$ (Texture0 Level 4 Pitch) Pitch = $D[7:0] * 2^D[11:8]$
21F7h-21F4h	D[31:28] D[27:16] D[15:12] D[11:0]	(4) (12) (4) (12)	Reserved EGTX0L7PITCH Reserved EGTX0L6PITCH	(Texture0 Level 7 Pitch) Pitch = $D[23:16] * 2^D[27:24]$ (Texture0 Level 6 Pitch) Pitch = $D[7:0] * 2^D[11:8]$
21FBh-21F8h	D[31:28] D[27:16] D[15:12] D[11:0]	(4) (12) (4) (12)	Reserved Reserved for EGTX0L9PITCH Reserved EGTX0L8PITCH	(Texture0 Level 9 Pitch) (Texture0 Level 8 Pitch) Pitch = $D[7:0] * 2^D[11:8]$
21FFh-21FCh	D[31:12] D[11:0]	(20) (12)	Reserved Reserved for EGTX0L10PITCH	(Texture0 Level 10 Pitch)

Texture1 Setting

2203h-2200h	D[31:24] D[23:16] D[15] D[14] D[13] D[12] D[11:8] D[7:0]	(8) (8) (1) (1) (1) (1) (4) (8)	EGTX1FM EGTX1MPMD EGTX1SwizFlg Reserved for EGTXbSafMode Reserved for EGTX1Coordim Reserved for EGTX1UVPOLAR EGTX1LV Reserved	(Texture1 Format) (Texture1 Mapping Mode) (Texture1 Texture swizzle flag) (BumpMapping Safe Mode) (Texture 1 Coordinate dimension) (Set Signed or Unsigned Texture1 of YUV Format) (Number of Texture1's Level)
2207h-2204h	D[31:20]	(12)	Reserved	

	D[19:18]	(2)	EGTX1FLMAX	(Texture1 Magnified Filter Mode)
	D[17:15]	(3)	EGTX1FLMIF	(Texture1 Minified Filter Mode)
	D[14:5]	(10)	EGTX1MLBS	(Texture1 Mip Lod Bias as 2's complement s4.5)
	D[4]	(1)	Reserved	
	D[3:0]	(4)	Reserved for EGTX1ANISTRPY	(Texture1 Anisotropy Filtering Ration Limit)
220Bh-2208h	D[31]	(1)	Reserved for EGBedBMode	(Bumped Texture Border Color Mode)
	D[30:28]	(3)	Reserved for EGTX1WBLOCK	(Width of Texture1's Block)
	D[27]	(1)	Reserved	
	D[26:24]	(3)	Reserved for EGTX1BSTWRatio	(Texture1's Block Size Texture Ratio)
	D[23:21]	(3)	Reserved	
	D[20:12]	(9)	EGTX1W	(Texture1's Width of Level0)
	D[11:9]	(3)	Reserved	
	D[8:0]	(9)	EGTX1H	(Texture1's Height of Level0)
220Fh-220Ch	D[31:26]	(6)	EGTX1TRSHA	(Texture1 A-channel Transparency High Threshold Value)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX1TRSHR	(Texture1 R-channel Transparency High Threshold Value)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX1TRSHG	(Texture1 G-channel Transparency High Threshold Value)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX1TRSHB	(Texture1 B-channel Transparency High Threshold Value)
	D[2:0]	(3)	Reserved	
2213h-2210h	D[31:26]	(6)	EGTX1TRSLA	(Texture1 A-channel Transparency Low Threshold Value)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX1TRSLR	(Texture1 R-channel Transparency Low Threshold Value)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX1TRSLG	(Texture1 G-channel Transparency Low Threshold Value)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX1TRSLB	(Texture1 B-channel Transparency Low Threshold Value)
	D[2:0]	(3)	Reserved	
2217h-2214h	D[31:26]	(6)	EGTX1CTBA	(A-channel of Border Color for Texture1)
	D[25:24]	(2)	Reserved	
	D[23:19]	(5)	EGTX1CTBR	(R-channel of Border Color for Texture1)
	D[18:16]	(3)	Reserved	
	D[15:10]	(6)	EGTX1CTBG	(G-channel of Border Color for Texture1)
	D[9:8]	(2)	Reserved	
	D[7:3]	(5)	EGTX1CTBB	(B-channel of Border Color for Texture1)
	D[2:0]	(3)	Reserved	
221Bh-2218h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L0BAS	(Texture1 Level 0 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
221Fh-221Ch	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L1BAS	(Texture1 Level1 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
2223h-2220h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L2BAS	(Texture1 Level 2 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
2227h-2224h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L3BAS	(Texture1 Level 3 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
222Bh-2228h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L4BAS	(Texture1 Level 4 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
222Fh-222Ch	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L5BAS	(Texture1 Level 5 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
2233h-2230h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX0L6BAS	(Texture1 Level 6 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
2237h-2234h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L7BAS	(Texture1 Level 7 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
223Bh-2238h	D[31:23]	(9)	Reserved	
	D[22:1]	(22)	EGTX1L8BAS	(Texture1 Level 8 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
223Fh-223Ch	D[31:1]	(31)	Reserved for EGTX1L9BAS	(Texture1 Level 9 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved	
2243h-2240h	D[31:1]	(31)	Reserved for EGTX1L10BAS	(Texture1 Level 10 Base Address : Multiple of 2 Bytes)

	D[0]	(1)	Reserved
2247h-2244h	D[31:1]	(31)	Reserved for EGTX1L11BAS (Texture1 Level 11 Base Address : Multiple of 2 Bytes)
	D[0]	(1)	Reserved
224Bh-2248h	D[31:28]	(4)	Reserved
	D[27:16]	(12)	EGTX1L1PITCH (Texture1 Level 1 Pitch) Pitch = D[23:16] * 2 ^ D[27:24]
	D[15:12]	(4)	Reserved
	D[11:0]	(12)	EGTX1L0PITCH (Texture1 Level 0 Pitch) Pitch = D[7:0] * 2 ^ D[11:8]
224Fh-224Ch	D[31:28]	(4)	Reserved
	D[27:16]	(12)	EGTX1L3PITCH (Texture1 Level 3 Pitch) Pitch = D[23:16] * 2 ^ D[27:24]
	D[15:12]	(4)	Reserved
	D[11:0]	(12)	EGTX1L2PITCH (Texture1 Level 2 Pitch) Pitch = D[7:0] * 2 ^ D[11:8]
2253h-2250h	D[31:28]	(4)	Reserved
	D[27:16]	(12)	EGTX1L5PITCH (Texture1 Level 5 Pitch) Pitch = D[23:16] * 2 ^ D[27:24]
	D[15:12]	(4)	Reserved
	D[11:0]	(12)	EGTX1L4PITCH (Texture1 Level 4 Pitch) Pitch = D[7:0] * 2 ^ D[11:8]
2257h-2254h	D[31:28]	(4)	Reserved
	D[27:16]	(12)	EGTX1L7PITCH (Texture1 Level 7 Pitch) Pitch = D[23:16] * 2 ^ D[27:24]
	D[15:12]	(4)	Reserved
	D[11:0]	(12)	EGTX1L6PITCH (Texture1 Level 6 Pitch) Pitch = D[7:0] * 2 ^ D[11:8]
225Bh-2258h	D[31:28]	(4)	Reserved
	D[27:16]	(12)	Reserved for EGTX1L9PITCH (Texture1 Level 9 Pitch)
	D[15:12]	(4)	Reserved
	D[11:0]	(12)	EGTX1L8PITCH (Texture1 Level 8 Pitch) Pitch = D[7:0] * 2 ^ D[11:8]
225Fh-225Ch	D[31:12]	(20)	Reserved
	D[11:0]	(12)	Reserved for EGTX1L10PITCH (Texture1 Level 10 Pitch)

Texture Blending Setting

2333h-2330h	D[30:24]	(8)	EGTXBLDA0fact (Alpha factor 0 for Texture Blending) (s.7)
	D[23:18]	(6)	EGTXBLDR0fact (Color factor 0 of R for Texture Blending) (s.5)
	D[17:16]	(2)	Reserved
	D[15:9]	(7)	EGTXBLDG0fact (Color factor 0 of G Texture Blending) (s.6)
	D[8]	(1)	Reserved
	D[7:2]	(6)	EGTXBLDB0fact (Color factor 0 of B for Texture Blending) (s.5)
	D[1:0]	(2)	Reserved
2337h-2334h	D[30:24]	(8)	EGTXBLDA1fact (Alpha factor 1 for Texture Blending) (s.7)
	D[23:18]	(6)	EGTXBLDR1fact (Color factor 1 of R for Texture Blending) (s.5)
	D[17:16]	(2)	Reserved
	D[15:9]	(7)	EGTXBLDG1fact (Color factor 1 of G Texture Blending) (s.6)
	D[8]	(1)	Reserved
	D[7:2]	(6)	EGTXBLDB1fact (Color factor 1 of B for Texture Blending) (s.5)
	D[1:0]	(2)	Reserved
234Fh-2330h	Reserved		
2353h-2350h	D[31:28]	(4)	EGTXCBS0R1ARGMod (Control 1st Input Modify to Stage0 Color Blending Unit)
	D[27:24]	(4)	EGTXCBS0R2ARGMod (Control 2 nd Input Modify to Stage 0 Color Blending Unit)
	D[23:20]	(4)	EGTXCBS0R3ARGMod (Control 3th Input Modify to Stage 0 Color Blending Unit)
	D[19:16]	(4)	EGTXCBS0R4ARGMod (Control 4th Input Modify to Stage 0 Color Blending Unit)
	D[15:13]	(3)	EGTXCBS0C0Wmsk (Select Current 0 Write Mask of Stage0 Color Blending Unit)
	D[12:8]	(5)	EGTXCBS0C0OMod (Select Current 0 Output Modify of Stage0 Color Blending Unit)
	D[7:15]	(3)	EGTXCBS0C1Wmsk (Select Current 1 Write Mask of Stage0 Color Blending Unit)
	D[4:0]	(5)	EGTXCBS0C1OMod (Select Current 1 Output Modify of Stage0 Color Blending Unit)
2357h-2354h	D[31]	(1)	Reserved
	D[30:25]	(6)	EGTXCBS0R1ARG (Control 1st Input to Stage0 Color Blending Unit)
	D[24:22]	(3)	EGTXCBS0ROPC (Select Operation C of Stage0 Color Blending Unit)
	D[21:16]	(6)	EGTXCBS0R2ARG (Control 2nd Input to Stage0 Color Blending Unit)
	D[15:14]	(2)	EGTXCBS0ROPB (Select Operation B of Stage0- Color Blending Unit)
	D[13:8]	(6)	EGTXCBS0R3ARG (Control 3rd Input to Stage0 Color Blending Unit Extension)
	D[7:6]	(2)	EGTXCBS0ROPA (Select Operation A of Stage0 Color Blending Unit)
	D[5:0]	(6)	EGTXCBS0R4ARG (Control 4th Input to Stage0 Color Blending Unit Extension)
235Bh-2358h	D[31:28]	(4)	EGTXCBS1R1ARGMod (Control 1st Input Modify to Stage1 Color Blending Unit)
	D[27:24]	(4)	EGTXCBS1R2ARGMod (Control 2 nd Input Modify to Stage 1 Color Blending Unit)
	D[23:20]	(4)	EGTXCBS1R3ARGMod (Control 3th Input Modify to Stage 1 Color Blending Unit)
	D[19:16]	(4)	EGTXCBS1R4ARGMod (Control 4th Input Modify to Stage 1 Color Blending Unit)
	D[15:13]	(3)	EGTXCBS1C0Wmsk (Select Current 0 Write Mask of Stage1 Color Blending Unit)
	D[12:8]	(5)	EGTXCBS1C0OMod (Select Current 0 Output Modify of Stage1 Color Blending Unit)
	D[7:15]	(3)	EGTXCBS1C1Wmsk (Select Current 1 Write Mask of Stage1 Color Blending Unit)

	D[4:0]	(5)	EGTXCBS1C10Mod (Select Current 1 Output Modify of Stage1 Color Blending Unit)
235Fh-235Ch	D[31]	(1)	Reserved
	D[30:25]	(6)	EGTXCBS1R1ARG (Control 1st Input to Stage1 Color Blending Unit)
	D[24:22]	(3)	EGTXCBS1ROPC (Select Operation C of Stage1 Color Blending Unit)
	D[21:16]	(6)	EGTXCBS1R2ARG (Control 2nd Input to Stage1 Color Blending Unit)
	D[15:14]	(2)	EGTXCBS1ROPB (Select Operation B of Stage1 Color Blending Unit)
	D[13:8]	(6)	EGTXCBS1R3ARG (Control 3rd Input to Stage1 Color Blending Unit Extension)
	D[7:6]	(2)	EGTXCBS1ROPA (Select Operation A of Stage1 Color Blending Unit)
	D[5:0]	(6)	EGTXCBS1R4ARG (Control 4th Input to Stage1 Color Blending Unit Extension)
238Fh-2360h			Reserved
2393h-2390h	D[31:28]	(4)	EGTXABS0R1ARGIMod (Control 1st Input Modify to Stage0 alpha Blending Unit)
	D[27:24]	(4)	EGTXABS0R2ARGIMod (Control 2 nd Input Modify to Stage 0 Alpha Blending Unit)
	D[23:20]	(4)	EGTXABS0R3ARGIMod (Control 3th Input Modify to Stage 0 alpha Blending Unit)
	D[19:16]	(4)	EGTXABS0R4ARGIMod (Control 4th Input Modify to Stage 0 Alpha Blending Unit)
	D[15:13]	(3)	EGTXABS0C0WMsk (Select Current 0 Write Mask of Stage0 Alpha Blending Unit)
	D[12:8]	(5)	EGTXABS0C0OMod (Select Current 0 Output Modify of Stage0 Alpha Blending Unit)
	D[7:15]	(3)	EGTXABS0C1WMsk (Select Current 1 Write Mask of Stage0 Alpha Blending Unit)
	D[4:0]	(5)	EGTXABS0C1OMod (Select Current 1 Output Modify of Stage0 Alpha Blending Unit)
2397h-2394h	D[31]	(1)	Reserved
	D[30:25]	(6)	EGTXABS0R1ARG (Control 1st Input to Stage0 Alpha Blending Unit)
	D[24:22]	(3)	EGTXABS0ROPC (Select Operation C of Stage0 Alpha Blending Unit)
	D[21:16]	(6)	EGTXABS0R2ARG (Control 2nd Input to Stage0 Alpha Blending Unit)
	D[15:14]	(2)	EGTXABS0ROPB (Select Operation B of Stage0 Alpha Blending Unit)
	D[13:8]	(6)	EGTXABS0R3ARG (Control 3rd Input to Stage0 Alpha Blending Unit Extension)
	D[7:6]	(2)	EGTXABS0ROPA (Select Operation A of Stage0 Alpha Blending Unit)
	D[5:0]	(6)	EGTXABS0R4ARG (Control 4th Input to Stage0 Alpha Blending Unit Extension)
239Bh-2398h	D[31:28]	(4)	EGTXABS1R1ARGIMod (Control 1st Input Modify to Stage1 alpha Blending Unit)
	D[27:24]	(4)	EGTXABS1R2ARGIMod (Control 2 nd Input Modify to Stage 1 Alpha Blending Unit)
	D[23:20]	(4)	EGTXABS1R3ARGIMod (Control 3th Input Modify to Stage 1 alpha Blending Unit)
	D[19:16]	(4)	EGTXABS1R4ARGIMod (Control 4th Input Modify to Stage 1 Alpha Blending Unit)
	D[15:13]	(3)	EGTXABS1C0WMsk (Select Current 0 Write Mask of Stage1 Alpha Blending Unit)
	D[12:8]	(5)	EGTXABS1C0OMod (Select Current 0 Output Modify of Stage1 Alpha Blending Unit)
	D[7:15]	(3)	EGTXABS1C1WMsk (Select Current 1 Write Mask of Stage1 Alpha Blending Unit)
	D[4:0]	(5)	EGTXABS1C1OMod (Select Current 1 Output Modify of Stage1 Alpha Blending Unit)
239Fh-239Ch	D[31]	(1)	Reserved
	D[30:25]	(6)	EGTXABS1R1ARG (Control 1st Input to Stage1 Alpha Blending Unit)
	D[24:22]	(3)	EGTXABS1ROPC (Select Operation C of Stage1 Alpha Blending Unit)
	D[21:16]	(6)	EGTXABS1R2ARG (Control 2nd Input to Stage1 Alpha Blending Unit)
	D[15:14]	(2)	EGTXABS1ROPB (Select Operation B of Stage1 Alpha Blending Unit)
	D[13:8]	(6)	EGTXABS1R3ARG (Control 3rd Input to Stage1 Alpha Blending Unit Extension)
	D[7:6]	(2)	EGTXABS1ROPA (Select Operation A of Stage1 Alpha Blending Unit)
	D[5:0]	(6)	EGTXABS1R4ARG (Control 4th Input to Stage1 Alpha Blending Unit Extension)
23BFh-23A0h			Reserved

End of Primitive Setting

23E1h-23E0h	D[15:3]	(13)	Reserved
	D[1:0]	(2)	EGEND (End of Primitive List)
23E3h-23E2h	D[15:0]	(16)	EGPASEND (End of Primitive List fpr Parsor)
23EFh-23E4h			Reserved

Palatted Texture0

2401h-2400h	D[15:0]	(16)	EGTX0Index0ARGB Texture0 Index 0 RGB (Texure 0 Paletted 8 : Index 0) (Texure 0 Paletted 7 : Index 0) (Texure 0 Paletted 4 : Index 0)
2403h-2402h	D[15:0]	(16)	EGTX0Index1ARGB Texture0 Index 1 RGB (Texure 0 Paletted 8 : Index 1) (Texure 0 Paletted 7 : Index 1) (Texure 0 Paletted 4 : Index 1)
242Fh-2404h			...
2431h-2430h	D[15:0]	(16)	EGTX0Index16ARGB Texture0 Index 16 RGB (Texure 0 Paletted 8 : Index 16) (Texure 0 Paletted 7 : Index 16)
24FFh-2432h			...

2501h-2500h	D[15:0]	(16)	EGTX0Index128ARGB	Texture0 Index 128 RGB (Texture 0 Paletted 8 : Index 128) (Texture 0 Paletted 7 : Index 0)
2503h-2502h	D[15:0]	(16)	EGTX0Index129ARGB	Texture0 Index 129 RGB (Texture 0 Paletted 8 : Index 129)
252Fh-2504h	...			
2531h-2530h	D[15:0]	(16)	EGTX0Index144ARGB	Texture0 Index 144 RGB (Texture 0 Paletted 8 : Index 144)
25FDh-2532h	...			
25FFh-25FEh	D[15:0]	(16)	EGTX0Index255ARGB	Texture0 Index 255 RGB (Texture 0 Paletted 8 : Index 255)

Front Enable Setting (Parser / Xform/ Cull)

2603h-2600h Type : R/W Default : xx xx xx xxh	D[31:28]	(4)	RGXSpecUseDef	Use default value for specular color (0: use parser output ; 1: use default value) D[27] : for fog (default value 0) D[26] : for SR (default value 0) D[25] : for SG (default value 0) D[24] : for SB (default value 0)
	D[27:24]	(4)	RGXDiffUseDef	Use default value for diffuse color (0: use parser output ; 1: use default value) D[27] : for A (default value 1) D[26] : for R (default value 1) D[25] : for G (default value 1) D[24] : for B (default value 1)
	D[23:20]	(4)	RGXPosUseDef	Use default value for position (0: use parser output ; 1: use default value) D[23] : for W (default value 1) D[22] : for Z (default value 0) D[21] : for Y (default value 0) D[20] : for X (default value 0)
	D[19:16]	(4)	RGXTexBUseDef	Use default value for Texture B ordinat (0: use Parser output 1: use default value) D[19] : for Q (default value 1) D[18] : for W (default value 0) D[17] : for V (default value 0) D[16] : for U (default value 0)
	D[15]	(1)	RGXNormUseDef	Use Default value for Normal (0: use Parser oupot 1: use default value (0,0,1))
	D[14]	(1)	RGXen2SideFill	Enable 2 side Fill Mode (0:disable; 1: Enable)
	D[13]	(1)	RGXScrCoor (Disable TnL)	Input Vertex is screen space coordinate or not : 0: is not screen space coordinate 1: is screen space coordinate
	D[12]	(1)	RGXEnableTwoSide	Enable Two side lighting; (0: Disable; 1: Enable)
	D[11]	(1)	RGPPtSizeSel	Point Size select (0: Select Global; 1: Select per vertex Point Size)
	D[10]	(1)	RGXDisableCull	Disable TnL Culling (0: Enable; 1: Disable)
	D[9]	(1)	RGXDisableReject	DisableTrival Reject (0: Enable; 1: Disable)
	D[8]	(1)	RGXDisableZeroTest	Disable TnL Zero Test (0: Enable; 1: Disable)
	D[7:4]	(4)	RGXTexAUseDef	Use default value for Texture A ordinat (0: use Parser output 1: use default value) D[7] : for Q (default value 1) D[6] : for W (default value 0) D[5] : for V (default value 0) D[4] : for U (default value 0)
	D[3]	(1)	RGPenTexGen	(Texture Generation 0: disable 1: enable)
	D[2]	(1)	RGPenTexTransform	(0: disable 1: enable texture transform)
D[1]	(1)	RGPenXformProjTX	(0:disable 1: enable Xform texture projection)	
D[0]	(1)	RGPenVtxCache	(0:disable 1:enable Vertex Cache)	

Front Enable Setting (lighting)

2607h-2604h Type : R/W Default : xx xx xx xxh	D[31:27]	(5)	Reseved	
	D[26]	(1)	RGXenDX7Light	Enable DX7 Specular Lighting (0: DX8 or DX9 Specular Light; 1: DX7 Specular Light)

				when specular light is not enabled & FVF contains specular material color DX7 : specular color = 0
	D[25]	(1)	RGXenLighting	Enable Lighting (0:disable; 1: Enable)
	D[24:23]	(2)	Reserved	
	D[22]	(1)	RXLigh7Enable	Light 7 Enable (0:Disable; 1:Enable)
	D[21]	(1)	RXLigh6Enable	Light 6 Enable (0:Disable; 1:Enable)
	D[20]	(1)	RXLigh5Enable	Light 5 Enable (0:Disable; 1:Enable)
	D[19]	(1)	RXLigh4Enable	Light 4 Enable (0:Disable; 1:Enable)
	D[18]	(1)	RXLigh3Enable	Light 3 Enable (0:Disable; 1:Enable)
	D[17]	(1)	RXLigh2Enable	Light 2 Enable (0:Disable; 1:Enable)
	D[16]	(1)	RXLigh1Enable	Light 1 Enable (0:Disable; 1:Enable)
	D[15]	(1)	RXLigh0Enable	Light 0 Enable (0:Disable; 1:Enable)
	D[14]	(1)	RGXenOpenGLLight	Enable OpenGL Light (0:disable; 1: Enable)
	D[13]	(1)	RGXVDNormX	Vextex Data include Normal (0: exclude; 1: include) 0: is not screen space coordinate
	D[12]	(1)	RGXNegCWNORMAL	Negative Normal flag (0: Neg CCW; 1: Neg CW)
	D[11]	(1)	RGXenNegNormal	Enable Negative Normal; (0: Disable; 1: Enable)
	D[10]	(1)	RGXSingleColor	Enable Single Color; (0: Disable; 1: Enable)
	D[9]	(1)	RGXenSpecLight	Enable Specular Light (0: Disable; 1: Enable)
	D[8]	(1)	RGXenVertexFog	Enable Vertex fog (0: Disable; 1: Enable)
	D[7]	(1)	Reserved	
	D[6]	(1)	RGXenScaleNormal	Enable Scaling Normal (0: Disable; 1: Enable)
	D[5]	(1)	RGXenPtScale	Enable Point size Scaling (0: disable; 1: Enable)
	D[4]	(1)	RGXenOPenGLPtScale	Enable OpenGL Point size Scaling (0: disable; 1: Enable)
	D[3]	(1)	RGXDisSpecTurboD	(0:enable 1: disable Turbo Specular) for N dot D < 0
	D[2]	(1)	RGXDisSpecTurboR	(0:enable 1: disable Turbo Specular) for light distance > light range
	D[1]	(1)	RGXDisSpecTurboS	(0:enable 1: disable Turbo Specular) for out of light con
	D[0]	(1)	RGXDisSpecTurboT	(0:enable 1 : disable Turbo Specular) for N dot H < threshold)

Front Enable Setting (Clipping & Cull)

260Bh-2608h Type : R/W Default : xx xx xx xxh	D[31:26]	(6)	RGXDisableClip	Disable Clipping (0: Enable; 1: Disable) D[31] : Disable Top plane clipping D[30] : Disable Bottom plane clipping D[29] : Disable Right plane clipping D[28] : Disable Left plane clipping D[27] : Disable Far plane clipping D[26] : Disable Near plane clipping
	D[25:5]	(21)	Reserved	
	D[5]	(1)	RGXen2SideCull	Enable Two-side Culling (0: Disable; 1: Enable)
	D[4]	(1)	RGXUseDefSel	Vertex value use default select (0: use default value; 1: use register setting value)
	D[3]	(1)	RGXenUserClipPlan	Enable User Clipping Plane (0: Disable; 1: Enable)
	D[2]	(1)	RGPenParserDrop	Enable Parser Drop (0: Disbale; 1: Enable)
	D[1]	(1)	RGPenTnlDrop	Enable TnL Drop (0: Disbale; 1: Enable)
	D[0]	(1)	RGPenSetupDrop	Enable Setup Drop (0: Disbale; 1: Enable)

Front Enable Setting (Setup)

260Fh-260Ch Type : R/W Default : xx xx xx xxh	D[31]	(1)	RGPenWNorm	Enable W normalization (0:Disable; 1:Enable)
	D[30]	(1)	RGPCopyZtoW	Enable Copy Z to W (0: Disable; 1: Enable)
	D[29]	(1)	Reserved	
	D[28]	(1)	RGPLLPixel	Draw Last pixel of line (0:Not Draw; 1: Draw)
	D[27]	(1)	RGSetupDivSel	0: DCT quality = 1/W+Delta; 1: original divider quality
	D[26]	(1)	RGPenZscale	Enable Z Scaling at Setup (0: Disable; 1: Enable)

	D[25]	(1)	RGPenSFMode	Enable Stereo Singlr Frame Mode (0: Disable; 1: Enable)
	D[24]	(1)	RGPStrFrame	Stereo Frame for single Frame Mode (0: Left frame; 1: Right frame)
	D[23]	(1)	RGPStrZ0NoShft	0: Normal shift when Z=0; 1: no shift when Z=0
	D[22]	(1)	RGPenXYZZeroCnt	Enable XY Zero count (0: Disable; 1: Enable)
	D[21]	(1)	Reserved	
	D[20]	(1)	RGPen1TJump	Enable Setup 1T Jump (0: Disable; 1: Enable)
	D[19]	(1)	RGPenPolygonOffset	Enable Polygon Offset (0: Disable; 1: Enable)
	D[18:17]	(2)	Reserved	
	D[16]	(1)	RGPCullDflg	Cull direction flag (0: CW; 1: CCW)
	D[15]	(1)	RGPenCull	Enable Setup culling (0: disable; 1: Enable)
	D[14]	(1)	RGPenPtSprite	Enable Point Sprite (0: disable; 1: Enable)
	D[13:11]	(3)	RGPSHMD	Flat Shading or Gouroud shading Selection 001 : FLAT_SHADING via a-vertex 010 : FLAT_SHADING via b-vertex 011 : FLAT_SHADING via c-vertex 100 : GOUROUD_SHADIN others : Reserved
	D[10]	(1)	RGPenZClamp	Enable Z Clamp for polygon offset (0: Disable; 1: Enable)
	D[9]	(1)	RGPZClampSign	Sign bit of D3DZClamp
	D[8:0]	(9)	Reserved	

Parser and Xform and Setup Setting

2613h-2610h Type : R/W Default : xx xx xx xxh	D[31:28]	(4)	Reserved	
	D[27:26]	(2)	RGPVDTexBCoor	Texture B Coordinate Set after texture transformation (00:2D; 01:3D; 10:4D; 11:1D)
	D[25:24]	(2)	RGPVDTexACoor	Texture A Coordinate Set after texture transformation (00:2D; 01:3D; 10:4D; 11:1D)
	D[23:20]	(4)	Reserved	
	D[19:18]	(2)	RGPTexGTXBMode	Texture B Texture Generation Mode 00:Reserved 01:CameraSpaceNormal, 10:CameraSpacePosition, 11:CameraSpaceReflectionVector
	D[17:16]	(2)	RGPTexGTXAMode	Texture A Texture Generation Mode 00:Reserved 01:CameraSpaceNormal, 10:CameraSpacePosition, 11:CameraSpaceReflectionVector
	D[15]	(1)	Reserved	
	D[14]	(1)	RGenDuplTxCoord	Texture coordinat duplicate to Texture coordinate A and B Enable 0 : Disable texture coordinate duplicate 1 : Enable texture coordinate duplicate
	D[13]	(1)	RGPTexGenTXBflg	Texture B texture Generation flag 0 : disable 1: enable)
	D[12]	(1)	RGPTexGenTXAflg	(Texture A texture Generation flag 0 : disable 1: enable)
	D[11]	(1)	RGPTexTransTXBform	(Texture B texture transform from 0 : Texture0 Matrix, 1: Texture 1 Matrix)
	D[10]	(1)	RGPTexTransTXAform	(Texture A texture transform from 0 : Texture0 Matrix, 1: Texture 1 Matrix)
	D[9]	(1)	RGPTexTransTXBflg	(Texture B texture transform flag 0 : disable 1: enable)
	D[8]	(1)	RGPTexTransTXAflg	(Texture A texture transform flag 0 : disable 1: enable)
	D[7: 6]	(2)	Reserved	
	D[5]	(1)	RGXProjTXBflg	(Texture B texture Projection flag in Xform 0 : disable 1: enable)
	D[4]	(1)	RGXProjTXAflg	(Texture A texture Projection flag 0 in Xform 0: disable 1: enable)
D[3:0]	(4)	Reseved		

2617h-2614h Type : R/W Default : xx xx xx xxh	D[31:18] D[17] D[16] D[15:8] D[7:4] D[3:0]	(14) (1) (1) (8) (4) (4)	Reserved RGPVDTexBNoPPFlg RGPVDTexANoPPFlg Reserved RGPenTexBWrap RGPenTexAWrap	Front Texture B No Perspective Flag Front Texture A No Perspective Flag Enable Texture B Wrap Correction Flag for Clip (0: Disable; 1: Enable) D[7] : Wrap Coord Q D[6] : Wrap Coord W D[5] : Wrap Coord V D[4] : Wrap Coord U Enable Texture A Wrap Correction Flag for Clip (0: Disable; 1: Enable) D[3] : Wrap Coord Q D[2] : Wrap Coord W D[1] : Wrap Coord V D[0] : Wrap Coord U
261Bh-2618h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGPStrScale	(Stereo Scale; $\delta X = \text{StrScale} * Z + \text{StrOffset}$) Format: s[7].16
261Fh-261Ch Type : R/W Default : xx xx xx xxh	D[31:28] D[27:24] D[23:14] D[13:0]	(4) (4) (10) (14)	Reserved RGPStrMaxS Reserved RGPStrOffset	Stereo Max Shift; Value = $2 \wedge \text{StrMaxS}$ Stereo Offset Format : s9.4

Polygon Offset

2623h-2620h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXSlopeCoeff	(Slope Coefficient for polygon offset) Format: s[7].16
2627h-2624h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXResCoeff	(Resolution Coefficient for polygon offset) Format: s[7].16
262Bh-2628h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGPZClamp	Z Clamp value = D3DZClamp – RGPResCoff Format : s[7].16
262Fh-262Ch Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	Reserved	

Point size and point size scaling & Line & Line AA & AA Point & Line Stipple & Polystipple

2633h-2630h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtScaleA	(Point size scaling Coefficient A) Format: s[7].16
2637h-2634h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtScaleB	(Point size scaling Coefficient B) Format: s[7].16
263Bh-2638h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtScaleC	(Point size scaling Coefficient C) Format: s[7].16
263Fh-263Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXVPHeight	(Viewport Height for Point size scaling) Format: s[7].16
2643h-2640h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtSizeMin	(Point size minimum value) Format: s[7].16
2647h-2644h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtSizeMax	(Point size maximum value) Format: s[7].16
264Bh-2648h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtThreshold	(Point size Threshold) Format: s[7].16
264Fh-264Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtAlphaClamp	(Point size Alpha Clamp) Format: s[7].16
2653h-2650h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXPtsize	Global Point Size Format : s[7].16
2657h-2654h Type : R/W Default : xx xx xx xxh	D[31:27] D[26:16] D[15:11]	(5) (11) (5)	Reserved RGPPCLBot Reserved	Point Bottom Clipping Window at Setup (s10)

	D[10:0]	(11)	RGPPtCLTop	Point Top Clipping Window at Setup (s10)
265Bh-2658h Type : R/W Default : xx xx xx xxh	D[31:27] D[26:16] D[15:11] D[10:0]	(5) (11) (5) (11)	Reserved RGPPtCLRright Reserved RGPPtCLLeft	Point Right Clipping Window at Setup (s10) Point Left Clipping Window at Setup (s10)
265Fh-265Ch Type : R/W Default : xx xx xx xxh	D[31] D[30:28] D[27:25] D[24] D[23:21] D[20] D[19:17] D[16] D[15:13] D[12:0]	(1) (3) (3) (1) (3) (1) (3) (1) (3) (13)	RGPClrLineCnt Reserved Reserved RGStippleTxSel Reserved RGAALineTxSel Reserved RGAAPontTxSel Reserved RGPLineWidth	Clear line counter for line strip at OpenGL line stipple enable (0: Not clear; 1: Clear) Polygon or Line stipple Texture Select (0: TexA; 1: TexB) AA Line Texture Select (0: TexA; 1: TexB) AA Point Texture Select (0: TexA; 1: TexB) Line Width (format 9.4)
2663h-2660h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGPLnRepeat	Repeat factor for line stipple = 1/(16*R) Format : s[7].16
2667h-2664h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGPdvRWfar	Z; W Scaling Factor for Scaling Z; W to Max Representation Range Format : s[7].16
266Bh-2668h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGRCpHalf	Inverse of half width (AA Line) Format : s[7].16
2670h-266Ch Type : R/W Default : xx xx xx xxh			Reserved	

Geometry T1 & T2 Transform Setting

2677h-2674h Type : R/W Default :	D[31:0]	(32)	Reserved	
267Bh-2678h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXScaleX	(Mvs, Scaling factor of screen coordinate X) (1A,3) Format: s[7].16
267Fh-267Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXOffsetX	(Mvs, Offset of screen coordinate X) (1A,3) Format: s[7].16
2683h-2680h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXScaleY	(Mvs, Scaling factor of screen coordinate Y) (1A,3) Format: s[7].16
2687h-2684h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXOffsetY	(Mvs, Offset of screen coordinate Y) (1A,3) Format: s[7].16
268Bh-2688h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXScaleZ	(Mvs, Scaling factor of screen coordinate Z) (1A,3) Format: s[7].16
268Fh-268Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXOffsetZ	(Mvs, Offset of screen coordinate Z) (3) Format: s[7].16
269Fh-2690h	reserved			
26A3h-26A0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT00	(The 0 th T1 matrix (mono/right eye)) (1A) Format: s[7].16
26A7h-26A4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT01	(The 0 th T1 matrix (mono/right eye)) (1A) Format: s[7].16
26ABh-26A8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT02	(The 0 th T1 matrix (mono/right eye)) (1A) Format: s[7].16
26AFh-26ACh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT03	(The 0 th T1 matrix (mono/right eye)) (1A) Format: s[7].16

26B3h-26B0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT10	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26B7h-26B4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT11	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26BBh-26B8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT12	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26BFh-26BCh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT13	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26C3h-26C0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT20	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26C7h-26C4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT21	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26CBh-26C8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT22	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26CFh-26CCCh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT23	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26D3h-26D0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT30	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26D7h-26D4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT31	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26DBh-26D8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT32	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26DFh-26DCh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0T1MAT33	(The 0 th T1 matrix (mono/right eye)) Format: s[7].16	(1A)
26E3h-26E0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv00	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26E7h-26E4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv01	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26EBh-26E8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv02	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26EFh-26ECh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv10	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26F3h-26F0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv11	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26F7h-26F4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv12	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26FBh-26F8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv20	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
26FFh-26FCh Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv21	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
2703h-2700h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv22	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
2707h-2704h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv30	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)
270Bh-2708h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mwv31	(The 0 th World * view Matrix (mono/right eye)) Format: s[7].16	(1A)

270Fh-270Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0Mvw32	(The 0 th World * view Matrix (mono/right eye)) (1A) Format: s[7].16
2713h-2710h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw00	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
2717h-2714h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw01	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
271Bh-2718h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw02	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
271Fh-271Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw10	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
2723h-2720h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw11	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
2727h-2724h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw12	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
272Bh-2728h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw20	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
272Fh-272Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw21	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
2733h-2730h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXR0InvMvw22	(The 0 th Transpose(Inv(World * view)) (m/r (1A) eye) Format: s[7].16
2737h-2734h	D[23:0]	(24)	RGXNormalFactor	(The Normal Factor , HW: (2) Nx/RGXNormalFact, Ny/ RGXNormalFact, Nz / RGXNormalFact) Format: s[7].16
273Bh-2738h	D[23:0]	(24)	RGPUUserClipPlanVa	User Clip plane coefficient Va: format s[7].16 P= Va*X+Vb*Y+Vc*Z+Vd (Va,Vb,Vc,Vd in Clipping Space)
273Fh-273Ch	D[23:0]	(24)	RGPUUserClipPlanVb	User Clip plane coefficient Va: format s[7].16 P= Va*X+Vb*Y+Vc*Z+Vd (Va,Vb,Vc,Vd in Clipping Space)
2743h-2740h	D[23:0]	(24)	RGPUUserClipPlanVc	User Clip plane coefficient Va: format s[7].16 P= Va*X+Vb*Y+Vc*Z+Vd (Va,Vb,Vc,Vd in Clipping Space)
2747-2744h	D[23:0]	(24)	RGPUUserClipPlanVd	User Clip plane coefficient Va: format s[7].16 P= Va*X+Vb*Y+Vc*Z+Vd (Va,Vb,Vc,Vd in Clipping Space)
274B-2748h	reserved			
27DFh-274Ch	reserved			
27FFh-27E0h	reserved			

Light Setting

2A03h-2A00h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT00	(Texture0 Transform Matrix) (2) Format: s[7].16
2A07h-2A04h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT01	(Texture0 Transform Matrix) (2) Format: s[7].16
2A0Bh-2A08h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT02	(Texture0 Transform Matrix) (2) Format: s[7].16
2A0Fh-2A0Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT03	(Texture0 Transform Matrix) (2) Format: s[7].16
2A13h-2A10h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT10	(Texture0 Transform Matrix) (2) Format: s[7].16
2A17h-2A14h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT11	(Texture0 Transform Matrix) (2) Format: s[7].16
2A1Bh-2A18h	D[23:0]	(24)	RGXTX0MAT12	(Texture0 Transform Matrix) (2)

Type : R/W Default : xx xx xx xxh				Format: s[7].16	
2A1Fh-2A1Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT13	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A23h-2A20h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT20	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A27h-2A24h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT21	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A2Bh-2A28h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT22	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A2Fh-2A2Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT23	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A33h-2A30h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT30	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A37h-2A34h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT31	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A3Bh-2A38h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT32	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A3Fh-2A3Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX0MAT33	(Texture0 Transform Matrix) Format: s[7].16	(2)
2A4Fh-2A40h	D[31:0]	(32)	Reserved		
2A53h-2A50h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT00	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A57h-2A54h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT01	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A5Bh-2A58h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT02	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A5Fh-2A5Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT03	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A63h-2A60h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT10	(Texture1 B Transform Matrix) Format: s[7].16	(2)
2A67h-2A64h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT11	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A6Bh-2A68h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT12	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A6Fh-2A6Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT13	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A73h-2A70h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT20	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A77h-2A74h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT21	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A7Bh-2A78h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT22	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A7Fh-2A7Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT23	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A83h-2A80h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT30	(Texture1 Transform Matrix) Format: s[7].16	(2)

2A87h-2A84h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT31	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A8Bh-2A88h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT32	(Texture1 Transform Matrix) Format: s[7].16	(2)
2A8Fh-2A8Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXTX1MAT30	(Texture1 Transform Matrix) Format: s[7].16	(2)
2AFFh-2A90h	Reserved				
2B03h-2B00h Type : R/W Default :D[10:0] : 00h Others : x	D[31:30]	(2)	RGXDiffMatSrc	(00: Vcd 01: Vcs 10:Md 11:reserved)	(2)
	D[29:28]	(2)	RGXSpecMatSrc	(00: Vcd 01: Vcs 10:Ms 11:reserved)	(2)
	D[27:26]	(2)	RGXEmissiveMatSrc	(00: Vcd 01: Vcs 10:Me 11:reserved)	(2)
	D[25:24]	(2)	RGXAmbientMatSrc	(00: Vcd 01: Vcs 10:Ma 11:reserved)	(2)
	D[23:22]	(2)	RGXFogFactSrc	(00: Vcd 01: Vcs 10:Ms 11:reserved)	(2)
	D[21:20]	(2)	RGXAlphaSrc	(00: Vcd 01: Vcs 10:Md 11:reserved)	(2)
	D[19:18]	(2)	RGXFogMode	(00:reserved 01:exp 10:exp2 11:linear)	(2)
	D[17:16]	(2)	Reserved		
	D[15]	(1)	RGXSpecPresent	(0: specular not present, 1: specular present)	(2)
	D[14]	(1)	RGXDiffPresent	(0: diffuse not present, 1: diffuse present)	(2)
	D[13]	(1)	RGXNormNormal	(0: disable normalizing normal, 1: enable normalizing normal)	(2)
	D[12]	(1)	RGXLocalViewer	(0: disable local viewer, 1: enable local viewer)	(2)
	D[11:10]	(2)	Reserved		(2)
	D[9]	(1)	RGXCWmpZero	(0: Normal case; 1: when Mp=0 (CW))	
	D[8]	(1)	RGXCWmpZero	(0: Normal case; 1: when Mp=0 (CCW))	
	D[7:0]	(8)	Reserved		
2B07h-2B04h Type : R/W Default : xx xx xx xxh	D[31:30]	(2)	RGXL0Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[29:28]	(2)	RGXL1Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[27:26]	(2)	RGXL2Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[25:24]	(2)	RGXL3Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[23:22]	(2)	RGXL4Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[21:20]	(2)	RGXL5Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[19:18]	(2)	RGXL6Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[17:16]	(2)	RGXL7Type	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[15:14]	(2)	Reserved	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[13:12]	(2)	Reserved	(00: point 01:spot 10:directional 11:reserved)	(2)
	D[11:10]	(2)	Reserved		
	D[9:8]	(2)	RGXDiffMatSrcCCW	(CCW Diffuse Material Src, 00: Vcd 01: Vcs 10: Md 11:reserved)	(2)
	D[7:6]	(2)	RGXSpecMatSrcCCW	(CCW Specular Material Src, 00: Vcd 01: Vcs 10: Ms 11:reserved)	(2)
	D[5:4]	(2)	RGXEmissiveMatSrcC CW	(CCW Emissive Material Src, 00: Vcd 01: Vcs 10: Me 11:reserved)	(2)
	D[3:2]	(2)	RGXAmbientMatSrcC CW	(CCW Ambient Material Src, 00: Vcd 01: Vcs 10: Ma 11:reserved)	(2)
	D[1:0]	(2)	RGXAlphaSrcCCW	(CCW Diffuse Alpha Src, 00: Vcd 01: Vcs 10: Md 11:reserved)	(2)
2B0Bh-2B08h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGSCWSDTh	Lighting turbo Specular Threshold (CW) Format : s[7].16	(2)
2B0Fh-2B0Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGSCWSDTh	Lighting turbo Specular Threshold (CCW) Format : s[7].16	(2)
2B13h-2B10h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWmR	(clockwise Diffuse Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B17h-2B14h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWmG	(clockwise Diffuse Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B1Bh-2B18h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWmB	(clockwise Diffuse Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B1Fh-2B1Ch Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWmA	(clockwise Diffuse Material A Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B23h-2B20h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWmR	(clockwise Ambient Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)

2B27h-2B24h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMaG	(clockwise Ambient Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B2Bh-2B28h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMaB	(clockwise Ambient Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B2Fh-2B2Ch Type : R/W Default : xx xx xx xxh	D[31:8] D[7:0]	(24) (8)	reserved Reserved for RGXCWMaA	(clockwise Ambient Material A Component) Format: 8	(2)
2B33h-2B30h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMSr	(clockwise Specular Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B37h-2B34h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMSg	(clockwise Specular Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B3Bh-2B38h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMSb	(clockwise Specular Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B3Fh-2B3Ch Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMSa	(clockwise Specular Material A Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B43h-2B40h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMeR	(clockwise Emissive Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B47h-2B44h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMeG	(clockwise Emissive Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B4Bh-2B48h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCWMeB	(clockwise Emissive Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B4Fh-2B4Ch Type : R/W Default : xx xx xx xxh	D[31:8] D[7:0]	(24) (8)	reserved Reserved for RGXCWMeA	(clockwise Emissive Material A Component) Format: 8	(2)
2B53h-2B50h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXCWMP	(clockwise Specular Exponent) Format: S[7].16	(2)
2B57h-2B54h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXFogEnd	(Fog end) Format: S[7].16	(2)
2B5Bh-2B58h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXFogRatio	(1.0/(FogEnd -FogStart)) Format: S[7].16	(2)
2B5Fh-2B5Ch Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXFogDensity	D3D: (-(density*log ₂ ^e)) OpenGL: (-(density*log ₂ ^e) when EXP) (-(density*density*log ₂ ^e) when EXP2) Format: S[7].16	(2)
2B63h-2B60h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMD	(counterclockwise Diffuse Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B67h-2B64h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMD	(counterclockwise Diffuse Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B6Bh-2B68h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMDb	(counterclockwise Diffuse Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B6Fh-2B6Ch Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMDa	(counterclockwise Diffuse Material A Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B73h-2B70h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMaR	(counterclockwise Ambient Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B77h-2B74h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMaG	(counterclockwise Ambient Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B7Bh-2B78h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMaB	(counterclockwise Ambient Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)

2B7Fh-2B7Ch Type : R/W Default : xx xx xx xxh	D[31:8] D[7:0]	(24) (8)	Reserved Reserved for RGXCCWMAA	(counterclockwise Ambient Material A Component) Format: 8	(2)
2B83h-2B80h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Specular Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B87h-2B84h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Specular Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B8Bh-2B88h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Specular Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B8Fh-2B8Ch Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Specular Material A Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B93h-2B90h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Emissive Material R Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B97h-2B94h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Emissive Material G Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B9Bh-2B98h Type : R/W Default : xx xx xx xxh	D[31:0]	(32)	RGXCCWMAA	(counterclockwise Emissive Material B Component) Format: S[8].23 -> 6 (HW format transfer)	(2)
2B9Fh-2B9Ch Type : R/W Default : xx xx xx xxh	D[31:8] D[7:0]	(24) (8)	reserved Reserved for RGXCCWMAA	(counterclockwise Emissive Material A Component) Format: 8	(2)
2BA3h-2BA0h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXCCWMAA	(counterclockwise Specular Exponent) Format: S[7].16	(2)
2BA7h-2BA4h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXLaR	(global ambient R Component) Format: S[7].16	(2)
2BABh-2BA8h Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXLaG	(global ambient G Component) Format: S[7].16	(2)
2BAFh-2BACH Type : R/W Default : xx xx xx xxh	D[23:0]	(24)	RGXLaB	(global ambient B Component) Format: S[7].16	(2)
2BFFh-2BB0h	reserved				
2C03h-2C00h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LpXr	(light position in eye) (=+RGXL0LdXr when Directional light) Format: S[7].16	(2)
2C07h-2C04h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LpYr	(light position in eye) (=+RGXL0LdYr when Directional light) Format: S[7].16	(2)
2C0Bh-2C08h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LpZr	(light position in eye) (=+RGXL0LdZr when Directional light) Format: S[7].16	(2)
2C0Fh-2C0Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LdXr	(light direction in eye) Format: S[7].16	(2)
2C13h-2C10h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LdYr	(light direction in eye) Format: S[7].16	(2)
2C17h-2C14h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LdZr	(light direction in eye) Format: S[7].16	(2)
2C1Bh-2C18h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcaR	(light ambient color R Component) Format: S[7].16	(2)
2C1Fh-2C1Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcaG	(light ambient color G Component) Format: S[7].16	(2)
2C23h-2C20h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcaB	(light ambient color B Component) Format: S[7].16	(2)
2C27h-2C24h	D[23:0]	(24)	RGXL0LcsR	(light specular color R Component)	(2)

Type : W Default : xx xx xx xxh				Format: S[7].16	
2C2Bh-2C28h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcsG	(light specular color G Component) Format: S[7].16	(2)
2C2Fh-2C2Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcsB	(light specular color B Component) Format: S[7].16	(2)
2C33h-2C30h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcR	(light diffuse color R Component) Format: S[7].16	(2)
2C37h-2C34h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcG	(light diffuse color G Component) Format: S[7].16	(2)
2C3Bh-2C38h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0LcB	(light diffuse color B Component) Format: S[7].16	(2)
2C3Fh-2C3Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Lr	D3D: (SQUARE(distance range)) OpenGL: (0x7ffffff) Format: S[7].16	(2)
2C43h-2C40h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Att0	(attenuation factor Att0) Format: S[7].16	(2)
2C47h-2C44h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Att1	(attenuation factor Att1) Format: S[7].16	(2)
2C4Bh-2C48h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Att2	(attenuation factor Att2) Format: S[7].16	(2)
2C4Fh-2C4Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0FallOff	(falloff factor) Format: S[7].16	(2)
2C53h-2C50h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Theta	D3D: (cos(theta/2)) OpenGL: cos(cutoff) Format: S[7].16	(2)
2C57h-2C54h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0Phi	D3D: (cos(phi/2)) OpenGL: 0.0 Format: S[7].16	(2)
2C5Bh-2C58h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL0ThetaSubPhi	D3D: (1 / (cos(theta/2)-cos(phi/2))) OpenGL: 1.0 Format: S[7].16	(2)
2C5Fh-2C5Ch Type : W Default : xx xx xx xxh	D[23:0]	(24)	Reserved RGXL0LrSqrt	D3D: (distance range) = sqrt (RGXL0Lr) Format: S[7].16	(2)
2CBFh-2C60h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL1LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL1LrSqrt	(distance range)	(2)
2D1Fh-2CC0h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL2LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL2LrSqrt	(distance range)	(2)
2D7Fh-2D20h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL3LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL3LrSqrt	(distance range)	(2)
2DDFh-2D80h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL4LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL4LrSqrt	(distance range)	(2)
2E3Fh-2DE0h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL5LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL5LrSqrt	(distance range)	(2)
2E9Fh-2E40h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL6LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL6LrSqrt	(distance range)	(2)
2EFFh-2EA0h Type : W Default : xx xx xx xxh	D[23:0]	(24)	RGXL7LpXr	(light position in eye)	(2)
	~	~	~	~	~
	D[23:0]	(24)	RGXL7LrSqrt	(distance range)	(2)
2EFFh-2F00h Type : W Default : xx xx xx xxh			Reserved		

Common Registers of Render & G/L

(PS. Copied from Render Spec. ver. 0.1. Must double check before use.)

2051h-2050h	D[13:12]	(2)	EGPCCWFillMode	CCW Primitive Fill Mode
2051h-2050h	D[1:0]	(2)	EGPFillMode	Primitive Fill Mode
2053h-2052h	D[5]	(1)	EGLLPixel	(Last pixel flag of line)
2053h-2052h	D[4:0]	(5)	EGPDTYPE	(Data Type)
2103h-2100h	D[9]	(1)	EGenTXPP	(Texture perspective enable)
2103h-2100h	D[4]	(1)	EGenSPEC	(Specular enable) (2)
2107h-2104h	D[15]	(1)	EGenUseSpec	(Use Specular Enable) (3)
2167h-2164h	D[25:16]	(10)	EGCLTop	(Clipping value for Top)
2167h-2164h	D[9:0]	(10)	EGCLBot	(Clipping value for Bottom)
216Bh-2168h	D[25:16]	(10)	EGCLleft	(Clipping value for Left)
216Bh-2168h	D[9:0]	(10)	EGCLrgt	(Clipping value for Right)
1BBFh-1B00h	Input vertices from Parser to G/L			
1C87h-1C00h	Output vertices from G/L to Setup			

Register Definition

1B03h-1B00h D[31:0]	Type : Read/Write RGPXa (s[8].23)	Default : xx xx xx xxh (X of vertex a)
1B07h-1B04h D[31:0]	Type : Read/Write RGP0Ya (s[8].23)	Default : xx xx xx xxh (Y of vertex a)
1B0Bh-1B08h D[31:0]	Type : Read/Write RGPZa (s[8].23)	Default : xx xx xx xxh (Z of vertex a)
1B0Fh-1B0Ch D[31:0]	Type : Read/Write RGPWa (s[8].23)	Default : xx xx xx xxh (W of vertex a) (MGVtxCoordSpace = 1)
1B31h-1B10h D[31:0]	Type : Read/Write RGPNXa (s[8].23)	Default : xx xx xx xxh (Normal X of vertex a) (MGVtxCoordSpace = 0)
1B17h-1B14h D[31:0]	Type : Read/Write RGPNYa (s[8].23)	Default : xx xx xx xxh (Normal Y of vertex a)
1B1Bh-1B18h D[31:0]	Type : Read/Write RGPNZa (s[8].23)	Default : xx xx xx xxh (Normal Z of vertex a)
1B23h-1B20h If MGVtxdiffmt = 01 (unsign byte) and MGVtxColrfmt = 0 (ARGB)	Type : Read/Write D[31:24] RGPAA (8) D[23:16] RGPRa (8) D[15:8] RGPGa (8) D[7:0] RGPBa (8)	Default : xx xx xx xxh (Alpha of vertex a) (R of vertex a) (G of vertex a) (B of vertex a)
If MGVtxdiffmt = 01 (unsign byte) and MGVtxColrfmt = 1 (RGBA)	D[31:24] RGPRa (8) D[23:16] RGPGa (8) D[15:8] RGPBa (8) D[7:0] RGPAA (8)	(R of vertex a) (G of vertex a) (B of vertex a) (Alpha of vertex a)
If MGVtxdiffmt = 00 (floating)	D[31:0] RGPRa (s[8].23)	(R of vertex a)
If MGVtxdiffmt = 10 (fixed point)	D[31:0] RGPRa (s15.16)	(R of vertex a)
1B27h-1B24h If MGVtxdiffmt = 00 (floating)	Type : Read/Write D[31:0] RGPGa (s[8].23)	Default : xx xx xx xxh (G of vertex a)
1B2Bh-1B28h If MGVtxdiffmt = 00 (floating)	Type : Read/Write D[31:0] RGPBa (s[8].23)	Default : xx xx xx xxh (B of vertex a)
1B2Fh-1B2Ch If MGVtxdiffmt = 00 (floating)	Type : Read/Write D[31:0] RGPAA (s[8].23)	Default : xx xx xx xxh (Alpha of vertex a)
1B33h-1B30h If MGVtxSpecfmt = 01 (unsign byte) and MGVtxColrfmt = 0 (ARGB)	Type : Read/Write D[31:24] RGPSFa (8) D[23:16] RGPSRa (8) D[15:8] RGPSGa (8)	Default : xx xx xx xxh (Fog of vertex a) (SR of vertex a) (SG of vertex a)

D[7:0]	RGSPBa (8)	(SB of vertex a)
If MGVTxSpecfmt = 01 (unsign byte) and MGVTxColrfmt = 1 (RGBA)		
D[31:24]	RGPSRa (8)	(SR of vertex a)
D[23:16]	RGPSGa (8)	(SG of vertex a)
D[15:8]	RGPSBa (8)	(SB of vertex a)
D[7:0]	RGPSFa (8)	(Fog of vertex a)
If MGVTxSpecfmt = 00 (floating)		
D[31:0]	RGPSRa (s[8].23)	(SR of vertex a)
1B37h-1B34h Type : Read/Write Default : xx xx xx xxh		
If MGVTxSpecfmt = 00 (floating)		
D[31:0]	RGPSGa (s[8].23)	(SG of vertex a)
1B3Bh-1B38h Type : Read/Write Default : xx xx xx xxh		
If MGVTxSpecfmt = 00 (floating)		
D[31:0]	RGPSBa (s[8].23)	(SB of vertex a)
1B3Fh-1B3Ch Type : Read/Write Default : xx xx xx xxh		
If MGVTxSpecfmt = 00 (floating)		
D[31:0]	RGPSFa (s[8].23)	(Fog of vertex a)
1B43h-1B40h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPUAa (s[8].23)	(UA of vertex a)
1B47h-1B44h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPVAa (s[8].23)	(VA of vertex a)
1B4Bh-1B48h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPMaA (s[8].23)	(MA of vertex a)
1B4Fh-1B4Ch Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPNAa (s[8].23)	(NA of vertex a)
1B53h-1B50h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPUBa (s[8].23)	(UB of vertex a)
1B57h-1B54h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPVBa (s[8].23)	(VB of vertex a)
1B5Bh-1B58h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPMBa (s[8].23)	(MB of vertex a)
1B5Fh-1B5Ch Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPNBa (s[8].23)	(NB of vertex a)
1B83h-1B80h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGPPSIZE (s[8].23)	(Point size of vertex a)
1BFFh-1B84h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	Reserved	
1C03h-1C00h Type : Read/Write Default : xx xx xx xxh		
D[31:0]	RGXXa (s[8].23)	(X of vertex a)

1C07h-1C04h D[31:0]	Type : Read/Write RGXYa (s[8].23)	Default : xx xx xx xxh (Y of vertex a)
1C0Bh-1C08h D[31:0]	Type : Read/Write RGXZa (s[8].23)	Default : xx xx xx xxh (Z of vertex a)
1C0Fh-1C0Ch D[31:0]	Type : Read/Write RGXWa (s[8].23)	Default : xx xx xx xxh (W of vertex a)
1C13h-1C10h D[31:24] D[23:16] D[15:8] D[7:0]	Type : Read/Write RGXAa (8) RGXRa (8) RGXGa (8) RGXBa (8)	Default : xx xx xx xxh (Alpha of vertex a) (R of vertex a) (G of vertex a) (B of vertex a)
1C17h-1C14h D[31:24] D[23:16] D[15:8] D[7:0]	Type : Read/Write RGXFa (8) RGXSRa (8) RGXSGa (8) RGXSBa (8)	Default : xx xx xx xxh (Fog factor of vertex a) (Specula R of vertex a) (Specula G of vertex a) (Specula B of vertex a)
1C1Bh-1C18h D[31:0]	Type : Read/Write RGXUAa (s[8].23)	Default : xx xx xx xxh (UA of vertex a)
1C1Fh-1C1Ch D[31:0]	Type : Read/Write RGXVAa (s[8].23)	Default : xx xx xx xxh (VA of vertex a)
1C23h-1C20h D[31:0]	Type : Read/Write RGXUBa (s[8].23)	Default : xx xx xx xxh (UB of vertex a)
1C27h-1C24h D[31:0]	Type : Read/Write RGXVBa (s[8].23)	Default : xx xx xx xxh (VB of vertex a)
1C2Bh-1C28h D[31:0]	Type : Read/Write RGXPSIZE (s[8].23)	Default : xx xx xx xxh (Point size of vertex a)
1C2Fh-1C2Ch D[31:0]	Type : Read/Write Reserved for RGXVCa (s[8].23)	Default : xx xx xx xxh (VC of vertex a)
1C33h-1C30h D[31:0]	Type : Read/Write RGXXb (s[8].23)	Default : xx xx xx xxh (X of vertex b)
1C37h-1C34h D[31:0]	Type : Read/Write RGXYb (s[8].23)	Default : xx xx xx xxh (Y of vertex b)
1C3Bh-1C38h D[31:0]	Type : Read/Write RGXZb (s[8].23)	Default : xx xx xx xxh (Z of vertex b)
1C3Fh-1C3Ch D[31:0]	Type : Read/Write RGXWb (s[8].23)	Default : xx xx xx xxh (Globe W of vertex b)
1C43h-1C40h D[31:24] D[23:16] D[15:8] D[7:0]	Type : Read/Write RGXAb (8) RGXRb (8) RGXGb (8) RGXBb (8)	Default : xx xx xx xxh (Alpha of vertex b) (R of vertex b) (G of vertex b) (B of vertex b)

1C47h-1C44h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	RGXFb (8)	(Fog factor of vertex b)
D[23:16]	RGXSRb (8)	(Specula R of vertex b)
D[15:8]	RGXSGb (8)	(Specula G of vertex b)
D[7:0]	RGXSBb (8)	(Specula B of vertex b)
1C4Bh-1C48h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXUAb (s[8].23)	(UA of vertex b)
1C4Fh-1C4Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXVAb (s[8].23)	(VA of vertex b)
1C53h-1C50h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXUBb (s[8].23)	(UB of vertex b)
1C57h-1C54h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXVBb (s[8].23)	(VB of vertex b)
1C5Bh-1C58h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	Reserved for RGXUCb (s[8].23)	(UC of vertex b)
1C5Fh-1C5Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	Reserved for RGXVCb (s[8].23)	(VC of vertex b)
1C63h-1C60h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXXc (s[8].23)	(X of vertex c)
1C67h-1C64h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXYc (s[8].23)	(Y of vertex c)
1C6Bh-1C68h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXZc (s[8].23)	(Z of vertex c)
1C6Fh-1C6Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXWc (s[8].23)	(Globe W of vertex c)
1C73h-1C70h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	RGXAc (8)	(Alpha of vertex c)
D[23:16]	RGXRc (8)	(R of vertex c)
D[15:8]	RGXGc (8)	(G of vertex c)
D[7:0]	RGXBc (8)	(B of vertex c)
1C77h-1C74h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	RGXFc (8)	(Fog Factor of vertex c)
D[23:16]	RGXSRc (8)	(Specula R of vertex c)
D[15:8]	RGXSGc (8)	(Specula G of vertex c)
D[7:0]	RGXSBc (8)	(Specula B of vertex c)
1C7Bh-1C78h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXUAc (s[8].23)	(UA of vertex c)
1C7Fh-1C7Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXVAc (s[8].23)	(VA of vertex c)
1C83h-1C80h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	RGXUBc (s[8].23)	(UB of vertex c)

1C87h-1C84h D[31:0]	Type : Read/Write RGXVBc (s[8].23)	Default : xx xx xx xxh (VB of vertex c)
1C8Bh-1C88h D[31:0]	Type : Read/Write Reserved for RGXUCc (s[8].23)	Default : xx xx xx xxh (UC of vertex c)
1C8Fh-1C8Ch D[31:0]	Type : Read/Write Reserved for RGXVCc (s[8].23)	Default : xx xx xx xxh (VC of vertex c)
1C9Fh-1C90h D[127:0]	Type : Read/Write Reserved	Default : xx xx xx xxh
1CA3h-1CA0h D[31] D[31:20] D[19:0] D[19:0]	Type : Read/Write EGSDraWDIR Reserved EGSXst (s9.10) EGSLMinst (s9.10)	Default : xx xx xx xxh (Draw direction) (Triangle: Start value of X) (Line: Start value of X)
1CA7h-1CA4h D[31:20] D[19:0] D[19:0]	Type : Read/Write Reserved EGSXstdy (s9.10) EGSLdQ (s9.10)	Default : xx xx xx xxh (Triangle: X increment in T_B direction) (Line: increment in T_B direction)
1CABh-1CA8h D[30:10] D[9:0] D[9:0]	Type : Read/Write Reserved EGSYst (s9) EGSLMajst (s9)	Default : xx xx xx xxh (Triangle: Start value of Y) (Line: Start value of Major coordination)
1CAFh-1CACH D[31:25] D[24:16] D[15:9] D[8:0] D[8:0]	Type : Read/Write Reserved EGSYbcnt (9) Reserved EGSYtcnt (9) EGSLcnt (9)	Default : xx xx xx xxh (Triangle: Y pixel count for top triangle) (Triangle: Y pixel count for bottom triangle) (Line: Pixel count for line drawing)
1CB3h-1CB0h D[31:20] D[19:0] D[19:0]	Type : Read/Write Reserved EGSXend (s9.10) EGSMinend (s9.10)	Default : xx xx xx xxh (Triangle: X of start position of end edge) (Line: Minor coordination of end edge)
1CB7h-1CB4h D[31:20] D[19:0] D[19:0]	Type : Read/Write Reserved EGSXendy (s9.10) EGSLdQ (s9.10)	Default : xx xx xx xxh (Triangle: X increment in T_M direction) (Line: increment in T_B direction)
1CBBh-1CB8h D[31:20] D[19:0]	Type : Read/Write Reserved EGSXbt (s9.10)	Default : xx xx xx xxh (Triangle: X of start position of bottom edge)
1CBFh-1CBCh D[31:20] D[19:0]	Type : Read/Write Reserved EGSXbtdy (s9.10)	Default : xx xx xx xxh (Triangle: X increment of start edge in T_B direction)
1CC3h-1CC0h D[31:24] D[23:0]	Type : Read/Write Reserved EGSZyst (s[7].16)	Default : xx xx xx xxh (Triangle: Z of start position)

1CC7h-1CC4h Type : Read/Write Default : xx xx xx xxh
D[31:24] Reserved
D[23:0] EGSZdx (s[7].16) (Triangle: Z increment in X direction)
D[23:0] EGSZLMadQ (s[7].16) (Line: Z increment in Major direction)

1CCBh-1CC8h Type : Read/Write Default : xx xx xx xxh
D[31:24] Reserved
D[23:0] EGSZdy (s[7].16) (Triangle: Z increment in Y direction)
D[23:0] EGSZLMidQ (s[7].16) (Line: Z increment in Minor direction)

1CCFh-1CCCh Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSAyst (s6.8) (Triangle: A of start position)

1CD3h-1CD0h Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSAdx (s6.8) (Triangle: A increment in X direction)
D[14:0] EGSAALMadQ (s6.8) (Line: A increment in Major direction)

1CDBh-1CD7h Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSA dy (s6.8) (Triangle: A increment in Y direction)
D[14:0] EGSAALMidQ (s6.8) (Line: A increment in Minor direction)

1CDFh-1CDCh Type : Read/Write Default : xx xx xx xxh
D[31:14] Reserved
D[13:0] EGSRyst (s5.8) (Triangle: R of start position)

1CE3h-1CE0h Type : Read/Write Default : xx xx xx xxh
D[31:14] Reserved
D[13:0] EGSRdx (s5.8) (Triangle: R increment in X direction)
D[13:0] EGSRMLMadQ (s5.8) (Line: R increment in Major direction)

1CE7h-1CE4h Type : Read/Write Default : xx xx xx xxh
D[31:14] Reserved
D[13:0] EGSRdy (s5.8) (Triangle: R increment in Y direction)
D[13:0] EGSRMLMidQ (s5.8) (Line: R increment in Minor direction)

1CEBh-1CE8h Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSGyst (s6.8) (Triangle: G of start position)

1CEFh-1CECh Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSGdx (s6.8) (Triangle: G increment in X direction)
D[14:0] EGSGLMadQ (s6.8) (Line: G increment in Major direction)

1CF3h-1CF0h Type : Read/Write Default : xx xx xx xxh
D[31:15] Reserved
D[14:0] EGSGdy (s6.8) (Triangle: G increment in Y direction)
D[14:0] EGSGLMidQ (s6.8) (Line: G increment in Minor direction)

1CF7h-1CF4h Type : Read/Write Default : xx xx xx xxh
D[31:14] Reserved
D[13:0] EGSByst (s5.8) (Triangle: B of start position)

1CFBh-1CF8h	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSBdx (s5.8)	(Triangle: B increment in X direction)
D[13:0]	EGSBLMadQ (s5.8)	(Line: B increment in Major direction)
1CFFh-1CFCh	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSBdy (s5.8)	(Triangle: B increment in Y direction)
D[13:0]	EGSBLMidQ (s5.8)	(Line: B increment in Minor direction)
1D04h-1D00h	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSFyst (s6.8)	(Triangle: F of start position)
1D07h-1D03h	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSFdx (s6.8)	(Triangle: F increment in X direction)
D[14:0]	EGSFLMadQ (s6.8)	(Line: F increment in Major direction)
1D0Bh-1D08h	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSFdy (s6.8)	(Triangle: F increment in Y direction)
D[14:0]	EGSFLMidQ (s6.8)	(Line: F increment in Minor direction)
1D0Fh-1D0Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSSRyst (s5.8)	(Triangle: SR of start position)
1D13h-1D10h	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSSRdx (s5.8)	(Triangle: SR increment in X direction)
D[13:0]	EGSSRLMadQ (s5.8)	(Line: SR increment in Major direction)
1D17h-1D14h	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSSRdy (s5.8)	(Triangle: SR increment in Y direction)
D[13:0]	EGSSRLMidQ (s5.8)	(Line: SR increment in Minor direction)
1D1Bh-1D18h	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSSGyst (s6.8)	(Triangle: SG of start position)
1D1Fh-1D1Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSSGdx (s6.8)	(Triangle: SG increment in X direction)
D[14:0]	EGSSGLMadQ (s6.8)	(Line: SG increment in Major direction)
1D23h-1D20h	Type : Read/Write	Default : xx xx xx xxh
D[31:15]	Reserved	
D[14:0]	EGSSGdy (s6.8)	(Triangle: SG increment in Y direction)
D[14:0]	EGSSGLMidQ (s6.8)	(Line: SG increment in Minor direction)
1D27h-1D24h	Type : Read/Write	Default : xx xx xx xxh
D[31:14]	Reserved	
D[13:0]	EGSSByst (s5.8)	(Triangle: SB of start position)

1D2Bh-1D28h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:14] Reserved
D[13:0] EGSSBdx (s5.8) (Triangle: SB increment in X direction)
D[13:0] EGSSBLMadQ (s5.8) (Line: SB increment in Major direction)

1D2Fh-1D2Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:14] Reserved
D[13:0] EGSSBdy (s5.8) (Triangle: SB increment in Y direction)
D[13:0] EGSSBLMidQ (s5.8) (Line: SB increment in Minor direction)

1D33h-1D30h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSwyst (s[7].16) (Triangle: W of start position)

1D37h-1D34h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSwdx (s[7].16) (Triangle: W increment in X direction)
D[23:0] EGSwLMadQ (s[7].16)(Line: W increment in Major direction)

1D3Bh-1D38h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSwdy (s[7].16) (Triangle: W increment in Y direction)
D[23:0] EGSwgLMidQ (s[7].16)(Line: W increment in Minor direction)

1D3Fh-1D3Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsu0yst (s[7].16) (Triangle: U0 of start position)

1D43h-1D40h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsu0dx (s[7].16) (Triangle: U0 increment in X direction)
D[23:0] EGsu0LMadQ (s[7].16)(Line: U0 increment in Major direction)

1D47h-1D44h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsu0dy (s[7].16) (Triangle: U0 increment in Y direction)
D[23:0] EGsu0LMidQ (s[7].16)(Line: U0 increment in Minor direction)

1D4Bh-1D48h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsv0yst (s[7].16) (Triangle: V0 of start position)

1D4Fh-1D4Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsv0dx (s[7].16) (Triangle: V0 increment in X direction)
D[23:0] EGsv0LMadQ (s[7].16)(Line: V0 increment in Major direction)

1D53h-1D50h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsv0dy (s[7].16) (Triangle: V0 increment in Y direction)
D[23:0] EGsv0LMidQ (s[7].16)(Line: V0 increment in Minor direction)

1D57h-1D54h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGsu1yst (s[7].16) (Triangle: U1 of start position)

1D5Bh-1D58h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSU1dx (s[7].16) (Triangle: U1 increment in X direction)
D[23:0] EGSU1LMadQ (s[7].16)(Line: U1 increment in Major direction)

1D5Fh-1D5Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSU1dy (s[7].16) (Triangle: U1 increment in Y direction)
D[23:0] EGSU1LMidQ (s[7].16)(Line: U1 increment in Minor direction)

1D63h-1D60h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSV1yst (s[7].16) (Triangle: V1 of start position)

1D67h-1D64h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSV1dx (s[7].16) (Triangle: V1 increment in X direction)
D[23:0] EGSV1LMadQ (s[7].16)(Line: V1 increment in Major direction)

1D6Bh-1D68h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:0] EGSV1dy (s[7].16) (Triangle: V1 increment in Y direction)
D[23:0] EGSV1LMidQ (s[7].16)(Line: V1 increment in Minor direction)

1D6Fh-1D6Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:30] Reserved
D[29:16] EGSYshft (s9.4) (Y shift value for triangle)
D[29:16] EGSLMyashft (s9.4) (Y shift value for line)
D[15:14] Reserved
D[13:0] EG SXshft (s9.4) (X shift value for triangle)
D[13:0] EGSLMxashft (s9.4) (X shift value for line)

1D73h-1D70h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:26] Reserved
D[25:16] EGSLlimit (s9) (Left limit value for line)
D[15:10] Reserved
D[9:0] EGSLRlimit (s9) (Right limit value for line)

1FFFh-1D74h **Reserved**

1F03h-1F00h	Type : Read/Write	Default : xx xx xx xxh
D[7:0]	MGVStreamActive	(Vertex Stream Active Bits)
	D[7]	Vertex Stream Active Bit7
	0:	Stream 7 No Active
	1:	Stream 7 Active
	D[6:0]	Vertex Stream Active Bit6~Bit0
	<i>Same as the Bit7</i>	
1F13h-1F10h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm0Stride	(Vertex Stream 0 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm0DataDim	(Vertex Stream 0 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm0DataType	(Vertex Stream 0 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm0ArrayType	(Vertex Stream 0 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D
	1000:	for Point Size
	1001- 1111:	Reserved
1F17h-1F14h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	MGVStrm0BAS	(Vertex Stream 0 : Base (byte units))
1F1Bh-1F18h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm1Stride	(Vertex Stream 1 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm1DataDim	(Vertex Stream 1 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm1DataType	(Vertex Stream 1 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm1ArrayType	(Vertex Stream 1 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D

	1000:	for Point Size
	1001- 1111:	Reserved
1F1Fh-1F1Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	MGVStrm1BAS	(Vertex Stream 1 : Base (byte units))
1F23h-1F20h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm2Stride	(Vertex Stream 2 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm2DataDim	(Vertex Stream 2 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm2DataType	(Vertex Stream 2 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm2ArrayType	(Vertex Stream 2 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D
	1000:	for Point Size
	1001- 1111:	Reserved
1F27h-1F24h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	MGVStrm2BAS	(Vertex Stream 2 : Base (byte units))
1F2Bh-1F28h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm3Stride	(Vertex Stream 3 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm3DataDim	(Vertex Stream 3 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm3DataType	(Vertex Stream 3 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm3ArrayType	(Vertex Stream 3 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D
	1000:	for Point Size

1001- 1111: Reserved

1F2Fh-1F2Ch **Type : Read/Write** **Default : xx xx xx xxh**
D[31:23] Reserved
D[22:0] MGVStrm3BAS (Vertex Stream 3 : Base (byte units))

1F33h-1F30h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:16] MGVStrm4Stride (Vertex Stream 4 : Stride (byte units))
D[15:10] Reserved
D[9:8] MGVStrm4DataDim (Vertex Stream 4 : Data Dimension)
00 : 1D (ex: x)
01 : 2D (ex: x, y)
10 : 3D (ex: x, y, z)
11 : 4D (ex: x, y, z, w)
D[7] Reserved
D[6:4] MGVStrm4DataType (Vertex Stream 4 : Data Type)
000 : Float point (s[8].23)
001 : Short (s15)
010 : Fixed point (s15.16)
011 : Signed Byte (s7 but s.7 for Normal)
100: Unsigned Byte (8)

D[3:0] MGVStrm4ArrayType (Vertex Stream 4 : Array Type)
0000: for Position
0001: for Normal
0010: for Diffuse Color
0011: for Specular Color
0100: for Texture A
0101: for Texture B
0110: for Texture C
0111: for Texture D
1000: for Point Size
1001- 1111: Reserved

1F37h-1F34h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:23] Reserved
D[22:0] MGVStrm4BAS (Vertex Stream 4 : Base (byte units))

1F3Bh-1F38h **Type : Read/Write** **Default : xx xx xx xxh**
D[31:24] Reserved
D[23:16] MGVStrm5Stride (Vertex Stream 5 : Stride (byte units))
D[15:10] Reserved
D[9:8] MGVStrm5DataDim (Vertex Stream 5 : Data Dimension)
00 : 1D (ex: x)
01 : 2D (ex: x, y)
10 : 3D (ex: x, y, z)
11 : 4D (ex: x, y, z, w)
D[7] Reserved
D[6:4] MGVStrm5DataType (Vertex Stream 5 : Data Type)
000 : Float point (s[8].23)
001 : Short (s15)
010 : Fixed point (s15.16)
011 : Signed Byte (s7 but s.7 for Normal)
100: Unsigned Byte (8)

D[3:0] MGVStrm5ArrayType (Vertex Stream 5 : Array Type)
0000: for Position
0001: for Normal
0010: for Diffuse Color
0011: for Specular Color
0100: for Texture A
0101: for Texture B
0110: for Texture C
0111: for Texture D
1000: for Point Size
1001- 1111: Reserved

1F3Fh-1F3Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	MGVStrm3BAS	(Vertex Stream 5 : Base (byte units))
1F43h-1F40h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm6Stride	(Vertex Stream 6 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm6DataDim	(Vertex Stream 6 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm6DataType	(Vertex Stream 6 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm6ArrayType	(Vertex Stream 6 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D
	1000:	for Point Size
	1001- 1111:	Reserved
1F47h-1F44h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	MGVStrm6BAS	(Vertex Stream 6 : Base (byte units))
1F4Bh-1F48h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved	
D[23:16]	MGVStrm7Stride	(Vertex Stream 7 : Stride (byte units))
D[15:10]	Reserved	
D[9:8]	MGVStrm7DataDim	(Vertex Stream 7 : Data Dimension)
	00 :	1D (ex: x)
	01 :	2D (ex: x, y)
	10 :	3D (ex: x, y, z)
	11 :	4D (ex: x , y, z, w)
D[7]	Reserved	
D[6:4]	MGVStrm7DataType	(Vertex Stream 7 : Data Type)
	000 :	Float point (s[8].23)
	001 :	Short (s15)
	010 :	Fixed point (s15.16)
	011 :	Signed Byte (s7 but s.7 for Normal)
	100:	Unsigned Byte (8)
D[3:0]	MGVStrm7ArrayType	(Vertex Stream 7 : Array Type)
	0000:	for Position
	0001:	for Normal
	0010:	for Diffuse Color
	0011:	for Specular Color
	0100:	for Texture A
	0101:	for Texture B
	0110:	for Texture C
	0111:	for Texture D
	1000:	for Point Size
	1001- 1111:	Reserved

1F4Fh-1F4Ch D[31:23] D[22:0]	Type : Read/Write Reserved MGVStrm7BAS	Default : xx xx xx xxh (Vertex Stream 7 : Base (byte units))
2033h-2030h D[10:8]	Type : Read/Write MGVLastStrmNum 000 : 001 : 010 : 011 : 100 : 101 : 110 : 111 : Reserved	Default : xx xx xx xxh Last Stream Number The last Stream is : Stream0 The last Stream is : Stream1 The last Stream is : Stream2 The last Stream is : Stream3 The last Stream is : Stream4 The last Stream is : Stream5 The last Stream is : Stream6 The last Stream is : Stream7
D[7:1]	Reserved	
D[0]	MGVtxColorfmt 0 : 1 :	Vertex Color Data format for ARGB for RGBA (AAAABBBBBGGGRRRR)
2037h-2034h D[31:28] D[27:0]	Type : Read/Write Reserved RGTDWNum	Default : xx xx xx xxh (Read Port : The number of Remained Word per List)
203Bh-2038h D[31:28] D[27:0]	Type : Read/Write Reserved for MGAGPReqS Reserved for MGTDWNum	Default : xx xx xx xxh (The AGP Request Threshold) (The number of total Word per List)
203Dh-203Ch D[15:0]	Type : Read/Write Reserved for MGAGPCBMFire	Default : xx xx xx xxh (write for AGP Command Buffers Mode fire)
203Fh-203Eh D[15:2] D[1:0]	Type : Read/Write Reserved MGAGPCMSFire 00 : 01 : 10 : 11 :	Default : xx xx xx xxh (write for AGP Command Mode Setup fire) for Buffer Mode Setup fire for Index Mode fire for Packet Mode fire for MMIO Mode fire
2043h-2040h D[31:28]	Type : Read/Write RGPVDTexCoorSet D[31:30] 00 : 01 : 10 : 11 : D[29:28] 00 : 01 : 10 : 11 : Reserved for D[27:26] 00 : 01 : 10 : 11 : Reserved for D[25:24] 00 : 01 : 10 : 11 :	Default : xx xx xx xxh (Vertex Data Texture coordinate Sets before Texture Transform) Texture A Means 2D (u,v) Texture for Texture A Means 3D (u,v,q) Texture for Texture A Means 4D (u,v,w,q)Texture for Texture A Means 1D (u) Texture for Texture A Texture B Means 2D (u,v) Texture for Texture B Means 3D (u,v,q) Texture for Texture B Means 4D (u,v,w,q)Texture for Texture B Means 1D (u) Texture for Texture B Texture Set5 Means 2D (u,v) Texture for Texture Set5 Means 3D (u,v,q) Texture for Texture Set5 Means 4D (u,v,w,q)Texture for Texture Set5 Means 1D (u) Texture for Texture Set5 Texture Set4 Means 2D (u,v) Texture for Texture Set4 Means 3D (u,v,q) Texture for Texture Set4 Means 4D (u,v,w,q)Texture for Texture Set4 Means 1D (u) Texture for Texture Set4

	Reserved for D[23:22]	Texture Set3
	00 :	Means 2D (u,v) Texture for Texture Set3
	01 :	Means 3D (u,v,q) Texture for Texture Set3
	10 :	Means 4D (u,v,w,q)Texture for Texture Set3
	11 :	Means 1D (u) Texture for Texture Set3
	Reserved for D[21:20]	Texture Set2
	00 :	Means 2D (u,v) Texture for Texture Set2
	01 :	Means 3D (u,v,q) Texture for Texture Set2
	10 :	Means 4D (u,v,w,q)Texture for Texture Set2
	11 :	Means 1D (u) Texture for Texture Set2
	Reserved for D[19:18]	Texture Set1
	00 :	Means 2D (u,v) Texture for Texture Set1
	01 :	Means 3D (u,v,q) Texture for Texture Set1
	10 :	Means 4D (u,v,w,q)Texture for Texture Set1
	11 :	Means 1D (u) Texture for Texture Set1
	Reserved for D[17:16]	Texture Set0
	00 :	Means 2D (u,v) Texture for Texture Set0
	01 :	Means 3D (u,v,q) Texture for Texture Set0
	10 :	Means 4D (u,v,w,q)Texture for Texture Set0
	11 :	Means 1D (u) Texture for Texture Set0
D[15:14]	Reserve	
D[13:12]	RGPVDTexCnt	(Vertex Data Texture Count) only for Parser
	00 :	No Texture
	10 :	Texture number is 2
D[11:8]	Reserved	
D[7:4]	Reserved for EGPVDForm	(Vertex Data Format)
	D[7]	Specular RGB
	1 :	Vetex Data include Specular RGB
	0 :	Vetex Data without Specular RGB
	D[6]	Diffuse RGB
	1 :	Vetex Data include Diffuse RGB
	0 :	Vetex Data without Diffuse RGB
	D[5]	Reserved
	D[4]	Normal X, Y, Z
	1 :	Vetex Data include Normal XYZ
	0 :	Vetex Data without Normal XYZ
D[3:1]	Reserved for EGPVDPosForm	(Vetex Data Position Format)
	000 :	not present
	001 :	XYZ
	010 :	XYZW
	011 :	XYZB0
	100 :	XYZB0B1
	101 :	XYZB0B1B2
	110 :	XYZB0B1B2B3
	111 :	XYZB0B1B2B3B4
D[0]	Reserved for EGPVDNormX	(Vertex Data Normal X)
	1 :	Vetex Data include Normal X
	0 :	Vetex Data without Normal X
2047h-2044h	Type : Read/Write	Default : xx xx xx xxh
D[31]	Reserved for EGIndAddrMode	(AGP Index Address Mode)
	0 :	Address = EGAGPCIMBAS + Index * Vertex size
	1 :	Address = EGAGPCIMBAS + (Index + EGIndexBAS) * Vertex size
D[31:85]	Reserved	
D[27:20]	EGPVDNum	(The number of Byte per Vertex)
	Address = EGVStrm0BAS + Index * EGPVDNum	Unit : Byte
D[19:0]	EGTVerNum	(The Total Vertex Number per List)
2051h-2050h	Type : Read/Write	Default : xx xx xx xxh
D[15:14]	Reserved	
D[13:12]	EGPCCWFillMode	(CCW Primitive fill mode)

	00 :	Reserved
	01 :	point
	10 :	wireframe
	11 :	solid
D[11:10]	EGT0FROM	(Texture 0 Come From)
	00 :	Texture 0 Come From Texture A
	01 :	Texture 0 Come From Texture B
	10 :	Texture 0 Come From Texture C
	11 :	Texture 0 Come From Texture D
D[9:8]	EGT1FROM	(Texture 1 Come From)
	00 :	Texture 1 Come From Texture A
	01 :	Texture 1 Come From Texture B
	10 :	Texture 1 Come From Texture C
	11 :	Texture 1 Come From Texture D
D[7:6]	Reserved for EGT2FROM	Reserved for (Texture 2 Come From)
	00 :	Texture 2 Come From Texture A
	01 :	Texture 2 Come From Texture B
	10 :	Texture 2 Come From Texture C
	11 :	Texture 2 Come From Texture D
D[5:4]	Reserved for EGT3FROM	Reserved for (Texture 3 Come From)
	00 :	Texture 3 Come From Texture A
	01 :	Texture 3 Come From Texture B
	10 :	Texture 3 Come From Texture C
	11 :	Texture 3 Come From Texture D
D[3:2]	<i>EGParMode</i>	<i>(Parsor Mode Setting)</i>
	00 :	<i>Strip is old method & Fan is old method</i>
	01 :	<i>Strip is old method & Fan is new method</i>
	10 :	<i>Strip is new method & Fan is old method</i>
	11 :	<i>Strip is new method & Fan is new method</i>
D[1:0]	EGFillMode	(Primitive fill mode)
	00 :	Reserved
	01 :	point
	10 :	wireframe
	11 :	solid
2053h-2052h	Type : Read/Write	Default : xx xx xx xxh
D[15]	Reserved for EGenVtxCache	(Enable Vertex Cache)
	0 :	Disable Vertex Cache
	1 :	Enable Vertex Cache
D[14]	Reserved for EGenClrGxL	(Enable Geometry Lighting Engine)
	0 :	Disable Clear Geometry Lighting Engine
	1 :	Enable Clear Geometry Lighting Engine
D[13]	Reserved for EGenGxL	(Enable Geometry Lighting Engine)
	0 :	<i>Disable Geometry Lighting Engine</i>
	1 :	<i>Enable Geometry Lighting Engine</i>
D[12:8]	Reserved for EGSETFIRE	(Set 3D Engine Fire Position)
	xx 000	3D Engine Fired tight after the WRITE of TFIRE
	00 001	3D Engine Fired right after the WRITE of EGPWa
	00 010	3D Engine Fired right after the WRITE of EGPNa
	00 011	3D Engine Fired right after the WRITE of EGPRa
	00 100	3D Engine Fired right after the WRITE of EGPAa
	00 101	3D Engine Fired right after the WRITE of EGPSRa
	00 110	3D Engine Fired right after the WRITE of EGPSFa
	01 000	3D Engine Fired right after the WRITE of EGPUAa
	01 001	3D Engine Fired right after the WRITE of EGPVAa
	01 010	3D Engine Fired right after the WRITE of EGPMAa
	01 011	3D Engine Fired right after the WRITE of EGPNa
	01 100	3D Engine Fired right after the WRITE of EGPUBa
	01 101	3D Engine Fired right after the WRITE of EGPVBa
	01 110	3D Engine Fired right after the WRITE of EGPMBa
	01 111	3D Engine Fired right after the WRITE of EGPNBa
	10 000	3D Engine Fired right after the WRITE of EGPPSizea
	others	Reserved
D[7:6]	Reserved for EGAGPCMTYPE	(AGP Command Mode Type)
	00 :	AGP Buffer Mode
	01 :	AGP Index Mode

	10 :	Write Combine Mode
	11 :	Reserved
D[5]	Reserved for EGLLPixel	(Line Drawing Last Pixel Flag)
	0 :	Line Drawing without Last pixel
	1 :	Line Drawing with Last pixel
D[4:0]	EGPDTYPE	(Data Type)
	0 00 00	Point Lists
	0 00 01	Reserved
	0 00 1x	Reserved
	0 01 00	Line Lists
	1 01 00	Line Lists 2
	0 01 01	Line Strips
	0 01 1x	Reserved
	0 10 00	Triangle Lists
	1 10 00	Triangles Lists 2
	0 10 01	Triangle Strips
	0 10 10	Triangle Fans
	0 10 11	Reserved
	others	Reserved

2055h-2054h Type : Read/Write Default : xx xx xx xxh

D[15:0]	EGSTATUSA	(Read for 3D Engine Status A)
D[15:8]	Reserved	
D[9]	EGAGPCMIDLE	(AGP fetching Engine Idle)
	0 :	AGP fetching Engine Busy
	1 :	AGP fetching Engine Idle
D[8]	EGDRAWDIR	(for Setup Write)
	<i>For Line Drawing</i>	
	0 :	Horizontal
	1 :	Vertical
	<i>For Triangle Drawing</i>	
	0 :	Left to Right
	1 :	Right to Left
D[7]	EGPotIDLE	(3D Post Engine Idle)
	0 :	3D Post Engine Busy
	1 :	3D Post Engine Idle
D[6]	EGBldIDLE	(3D Blending Engine Idle)
	0 :	3D Blending Engine Busy
	1 :	3D Blending Engine Idle
D[5]	EGZIDLE	(3D Z Engine Idle)
	0 :	3D Z Engine Busy
	1 :	3D Z Engine Idle
D[4]	EGTxIDLE	(3D Texture Engine Idle)
	0 :	3D texture Engine Busy
	1 :	3D texture Engine Idle
D[3]	EGShaIDLE	(3D Shading Engine Idle)
	0 :	3D Shading Engine Busy
	1 :	3D Shading Engine Idle
D[2]	EGSetIDLE	(3D Setup Engine Idle)
	0 :	3D Setup Engine Busy
	1 :	3D Setup Engine Idle
D[1]	EG3dQidle	(3D Engine Idle & 3D Queue Empty)
	0 :	3D Engine Busy or 3D Queue not Empty
	1 :	3D Engine Idle & 3D Queue Empty
D[0]	EG3DIDLE	(3D Engine Idle)
	0 :	3D Engine Busy
	1 :	3D Engine Idle

2057h-2056h Type : Read/Write Default : xx xx xx xxh

D[15:0]	EGSTATUSB	(Read for 3D Engine Status B)
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2059h-2058h	Type : Read/Write	Default : xx xx xx xxh
D[15:0]	EGFIRE	(Write to Fire 3D Engine)
D[15:0]	EGSTATUSC	(Read for 3D Engine Status C)
205Bh-205Ah	Type : Read/Write	Default : xx xx xx xxh
D[15:0]	EGSTATUSD	(Read for 3D Engine Status D)
2103h-2100h	Type : Read/Write	Default : 00 00 00 00h
D[31]	Reserved for EGTXWCFVD	(Texture D Wrap Correction Flag of V)
	0 :	Do not Wrap Correct V of Texture D
	1 :	Wrap Correct V of Texture D
D[30]	Reserved for EGTXWCFUD	(Texture D Wrap Correction Flag of U)
	0 :	Do not Wrap Correct U of Texture D
	1 :	Wrap Correct U of Texture D
D[29]	Reserved for EGTXWCFVC	(Texture C Wrap Correction Flag of V)
	0 :	Do not Wrap Correct V of Texture C
	1 :	Wrap Correct V of Texture C
D[28]	Reserved for EGTXWCFUC	(Texture C Wrap Correction Flag of U)
	0 :	Do not Wrap Correct U of Texture C
	1 :	Wrap Correct U of Texture C
D[27]	EGTXWCFVB	(Texture B Wrap Correction Flag of V)
	0 :	Do not Wrap Correct V of Texture B
	1 :	Wrap Correct V of Texture B
D[26]	EGTXWCFUB	(Texture B Wrap Correction Flag of U)
	0 :	Do not Wrap Correct U of Texture B
	1 :	Wrap Correct U of Texture B
D[25]	EGTXWCFVA	(Texture A Wrap Correction Flag of V)
	0 :	Do not Wrap Correct V of Texture A
	1 :	Wrap Correct V of Texture A
D[24]	EGTXWCFUA	(Texture A Wrap Correction Flag of U)
	0 :	Do not Wrap Correct U of Texture A
	1 :	Wrap Correct U of Texture A
D[23]	Reserved	
D[22]	EGenStT	(Stencil Test Enable)
	0 :	Stencil Test Disable
	1 :	Stencil Test Enable
D[21]	Reserved for EGenCubMp	(Cubic Mapping Enable)
	0 :	Cubic Mapping Disable
	1 :	Cubic Mapping Enable
D[20]	EGenZW	(Z Write Enable)
	0 :	Z Write Disable
	1 :	Z Write Enable
D[19]	EGenZT	(Z Test Enable)
	0 :	Z Test Disable
	1 :	Z Test Enable
D[18]	EgenNoTriAli	(No Triangle Alignment Enable)
	0 :	Triangle Alignment
	1 :	No Triangle Alignment
D[17]	EGenAT	(Alpha Test Enable)
	0 :	Alpha Test Disable
	1 :	Alpha Test Enable
D[16]	EGenZnoClear	(Z no Clear Enable)
	0 :	Z no Clear Disable
	1 :	Z no Clear Enable
D[15]	EGenTXSwiz	(Texture Swizzle Enable)
	0 :	Texture Swizzle Disable
	1 :	Texture Swizzle Enable
D[14:12]	EGTXNUM	(The Number of Texture to be used)
	000:	No Texture
	001:	One Texture
	010:	Two Texture
	011:	Three Texture
	100:	Four Texture
	101 – 111:	Reserved for more Texture
D[11]	Reserved for EgenCull	(Backface Cull Enable)
	0 :	Backface Culling Disable
	1 :	Backface Culling Enable
D[10]	EGenTXMP	(Texture Mapping Enable)
	0 :	Texture Mapping Disable
	1 :	Texture Mapping Enable

D[9]	EGenTXPP	(Texture Perspective Correction Enable)
	0 :	Texture Perspective Correction Disable
	1 :	Texture Perspective Correction Enable
D[8]	Reserved for EGenLNLTurboMode	(Trilinear turbo mode Enable)
	0 :	Tri-linear turbo Mode Disable
	1 :	Tri-linear turbo Mode Enable
D[7]	EGenTXCACHE	(Enable Texture Cache)
	0 :	Texture Cache Disable
	1 :	Texture Cache Enable
D[6]	EGenTXCLRCACHE(Clear	Texture Cache)
	0 :	Keep Texture Cache Data
	1 :	Clear Texture Cache
D[5]	EGenStBuf	(Stencil Buffer Enable)
	0 :	Stencil Buffer Disable
	1 :	Stencil Buffer Enable
D[4]	EGenSPEC	(Specula Enable)
	0 :	Specula Disable
	1 :	Specula Enable
D[3]	EGenFOG	(Fog Enable)
	0 :	Fog Disable
	1 :	Fog Enable
D[2]	EGenLAA	(Line AA Enable)
	0 :	Line AA Disable
	1 :	Line AA Enable
D[1]	EGenBLEND	(Blending Enable)
	0 :	Blending Disable
	1 :	Blending Enable
D[0]	EGenDITH	(Dither Enable)
	0 :	Dither Disable
	1 :	Dither Enable
2107h-2104h	Type : Read/Write	Default : 00 00 00 00h
D[31]	Reserved for EGenTX3TR	(Texture 3 Transparency Enable)
	0 :	Texture 3 Transparency Disable
	1 :	Texture 3 Transparency Enable
D[30]	Reserved for EGenTX2TR	(Texture 2 Transparency Enable)
	0 :	Texture 2 Transparency Disable
	1 :	Texture 2 Transparency Enable
D[29]	EGenTX1TR	(Texture 1 Transparency Enable)
	0 :	Texture 1 Transparency Disable
	1 :	Texture 1 Transparency Enable
D[28]	EGenTX0TR	(Texture 0 Transparency Enable)
	0 :	Texture 0 Transparency Disable
	1 :	Texture 0 Transparency Enable
D[27]	Reserved for EGenPwrSmart	(Power Saving Smart Mode Enable)
	0 :	Power Saving Smart Mode Disable
	1 :	Power Saving Smart Mode Enable
D[26]	Reserved for EGenYLowR	(Y Low Resolution Enable)
	0 :	Y Low Resolution Disable
	1 :	Y Low Resolution Enable
D[25]	Reserved for EGenWNorm	(W Normalize Enable)
	0 :	W Normalize Disable
	1 :	W Normalize Enable
D[24]	EGenZBias	(Z Bias Enable)
	0 :	Z Bias Disable
	1 :	Z Bias Enable
D[23]	EGenCWrMask	(Color Write Mask Enable)
	0 :	Color Write Mask Disable
	1 :	Color Write Mask Enable
D[22]	EGenZWrMask	(Z Write Mask Enable)
	0 :	Z Write Mask Disable
	1 :	Z Write Mask Enable
D[21]	Reserved for EGenPolygOffset	(Ploygon Offset Enable)
	0 :	Polygon offset Disable
	1 :	Polygon Offset Enable
D[20]	EGenNoZMerge	(No Z Merge Enable)
	0 :	With Z Merge
	1 :	No Z Merge Enable
D[19]	EGenMIPBS	(Texture MIPMAP Bias Enable)
	0 :	Texture MIPMAP Bias Disable

D[18]	1 : EGenUseSpec 0 :	Txture MIPMAP Bias Enable (Use Specular Color Enable) Use Specular Color Disable
D[17]	1 : EGenTXBl 0 :	Use Specular Color Enable (Texture Blending Enable) Texture Blending Disable
D[16]	1: Reserved for EGenXYZZeroCnt	Texture Blending Enable (X Y Zero Count Enable)
	0: 1:	X Y Zero Count Disable X Y Zero Count Enable
D[15]	EGenPolyStipple 0 :	(Polygon Stipple Enable) Polygon Stipple Disable
	1 :	Polygon Stipple Enable
D[14]	EGenAAPoint 0 :	(AA Point Enable) AA Point Disable
	1 :	AA Point Enable
D[13]	EGenAALineAT 0 :	(AA Line or AA Poinr Alpha Test Enable) AA Line or AA Poinr Alpha Test Disable
	1 :	AA Line or AA Poinr Alpha Test Enable
D[12]	EGenStereo 0:	(Stereo Enable) Stereo Disable
	1:	Stereo Enable
D[11]	EGenLineStipple 0:	(Line Stipple Enable) Line Stipple Disable
	1:	Line Stipple Enable
D[10]	EGenStWrMask 0:	(Stencil write Mask Enable) Stencil write Mask Disable
	1:	Stencil write Mask Enable
D[9]	EGenInvDITH 0:	(Inverse Dither Enable) Inverse Dither Disable
	1:	Inverse Dither Enable
D[8]	EGenxturbotri 0:	(Texture turbo tri-linear Enable) Texture turbo tri-linear Disable
	1:	Texture turbo tri-linear Enable
D[7:2]	Reserved	
D[1]	EGTX1magminSWflag 0:	(Texture1 OpenGL mag or min judge flag Enable) D3D (> 0)
	1:	OpenGL (> 0.5)
D[0]	EGTX0magminSWflag 0:	(Texture0 OpenGL mag or min judge flag Enable) D3D (> 0)
	1:	OpenGL (> 0.5)

210Bh-2108h Type : Read/Write Default : xx xx xx xxh

D[31:27]	Reserved	
D[26:20]	EGZBUFFM	(Z Buffer Format)
	0 0 0 00 00 :	Z16
	0 0 0 10 xx :	F1Z15
	0 0 0 11 xx :	F2Z14
	0 0 1 00 00 :	[5].11 floating point
D[18:16]	EGZTMD	(Z Test Mode)
	000 :	Z test never pass
	001 :	Pass if Znew < Zdst
	010 :	Pass if Znew = Zdst
	011 :	Pass if Znew ≤ Zdst
	100 :	Pass if Znew > Zdst
	101 :	Pass if Znew ≠ Zdst
	110 :	Pass if Znew ≥ Zdst
	111 :	Z test always pass
D[15:11]	Reserved	
D[9:0]	EGZPIT → A10 ~ A1	(Z Buffer Pitch = EGZPIT * 2 Bytes)

210Dh-210Ch Type : Read/Write Default : xx xx xx xxh

D[15:0]	EGZWrMASK	(Z Write Mask)
	XX XX XX	(for Z0, Left)
	1 :	Z Write Enable for the Bit

	0 :	Z Write Disable for the Bit
210Fh-210Eh	Type : Read/Write	Default : xx xx xx xxh
D[15:0]	EGZdstInitValue	(Z initial Value)
	Format is same as the Z format	
	F1Z15	
	F2Z14	
2113h-2110h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:1]	EGZBAS → A22 ~ A1	(Z Buffer Base Address = EGZBAS * 2 Bytes)
D[0]	Reserved	
2117h-2114h	Type : Read/Write	Default : xx xx xx xxh
D[31:30]	Reserved	
D[29:28]	Reserved for EGABUFFM	(Alpha Buffer Color Format)
	00 :	A1
	01 :	A2
	10 :	A4
	11 :	A8
D[27]	Reserved for EGAINSY	(Alpha Buffer in System Memory)
	0 :	Alpha Buffer in External Memory
	1 :	Alpha Buffer in System Memory
D[26:11]	Reserved	
D[10:8]	EGATMD	(Alpha Test Mode)
	000 :	Alpha test never pass
	001 :	Pass if Anew < Aref
	010 :	Pass if Anew = Aref
	011 :	Pass if Anew ≤ Aref
	100 :	Pass if Anew > Aref
	101 :	Pass if Anew ≠ Aref
	110 :	Pass if Anew ≥ Aref
	111 :	Alpha test always pass
D[7:0]	EGAREF	(Alpha Reference Value)
	→ 8.0 format (user [A7:A2] for MM365)	
2123h-2120h	Type : Read/Write	Default : xx xx xx xxh
D[31:28]	Reserved	
D[27:24]	EGDST0ROP	(Destination 0[L] Raster Operation)
	0000 :	BLACK 0
	0001 :	NOT_MERGE_PEN DPon
	0010 :	MASK_NOT_PEN DPna
	0011 :	NOT_COPY_PEN Pn
	0100 :	MASK_PEN_NOT PDna
	0101 :	NOT Dn
	0110 :	XOR_PEN DPx
	0111 :	NOT_MASK_PEN DPan
	1000 :	MASK_PEN DPa
	1001 :	NOT_XOR_PEN DPxn
	1010 :	NO P
	1011 :	MERGE_NOT_PEN DPno
	1100 :	COPY_PEN P
	1101 :	MERGE_PEN_NOT PDno
	1110 :	MERGE_PEN DPo
	1111 :	WHITE 1
D[23]	Reserved for EGDST0INSY	(Destination 0[L] Surface Located in System Memory)
	0 :	Destination Surface in External Memory
	1 :	Destination Surface in System Memory
D[22:16]	EGDST0CFM	(Destination 0[L] Color Format)
	D[22] :	0 = RGB ordering in RGB format
		1 = BGR ordering in RGB format
	D[21:20]	00 = Index format or RGB_8bpp format
		01 = RGB_16bpp format
		10 = RGB_24bpp format
		11 = RGB_32bpp format
Color ordering is shown from the MSB to the LSB.		
8bpp	0 00 0000 :	Reserved for Index8 (IIII IIII)
	0 00 0001-1111	Reserved
	0 00 1000 :	Reserved for RGB332 (RRRG GGBB)
	0 00 1001 :	Reserved for RGB233 (RRRG GGBB)

	0 00 1010 :	Reserved for RGB232 (URRG GGBB)
	0 00 1011 :	Reserved for ARGB1232 (ARRG GGBB)
	0 00 1100-1111	Reserved
16bpp	0 01 0000 :	RGB555 (URRR RRGG GGGB BBBB)
	0 01 0001 :	RGB565 (RRRR RGGG GGGB BBBB)
	0 01 0010 :	ARGB1555 (ARRR RRGG GGGB BBBB)
	0 01 0011 :	ARGB4444 (AAAA RRRR GGGG BBBB)
	0 01 0100 :	Reserved for ARGB1332 (AUUU UUUU RRRG GGBB)
	0 01 0101 :	Reserved for ARGB2332 (AAUU UUUU RRRG GGBB)
	0 01 0110 :	Reserved for ARGB4332 (AAAA UUUU RRRG GGBB)
	0 01 0111 :	Reserved for ARGB8332 (AAAA AAAA RRRG GGBB)
	0 01 1000 :	Reserved for ARGB1233 (AUUU UUUU RRGG GBBB)
	0 01 1001 :	Reserved for ARGB2233 (AAUU UUUU RRGG GBBB)
	0 01 1010 :	Reserved for ARGB4233 (AAAA UUUU RRGG GBBB)
	0 01 1011 :	Reserved for ARGB8233 (AAAA AAAA RRGG GBBB)
	0 01 1100 :	Reserved
	0 01 1101 :	Reserved for ARGB2232 (AAUU UUUU URRG GGBB)
	0 01 1110 :	Reserved for ARGB4232 (AAAA UUUU URRG GGBB)
	0 01 1111 :	Reserved for ARGB8232 (AAAA AAAA URRG GGBB)
24bpp	0 10 0000 :	Reserved for ARGB1565 (AUUU UUUU RRRR RGGG GGGB BBBB)
	0 10 0001 :	Reserved for ARGB2565 (AAUU UUUU RRRR RGGG GGGB BBBB)
	0 10 0010 :	Reserved for ARGB4565 (AAAA UUUU RRRR RGGG GGGB BBBB)
	0 10 0011 :	Reserved for ARGB8565 (AAAA AAAA RRRR RGGG GGGB BBBB)
	0 10 0100 :	Reserved
	0 10 0101 :	Reserved for ARGB2555 (AAUU UUUU URRR RRGG GGGB BBBB)
	0 10 0110 :	Reserved for ARGB4555 (AAAA UUUU URRR RRGG GGGB BBBB)
	0 10 0111 :	Reserved for ARGB8555 (AAAA AAAA URRR RRGG GGGB BBBB)
	0 10 1000 :	Reserved for RGB888 (RRRR RRRR GGGG GGGG BBBB BBBB)
	0 10 1001-1111	Reserved
32bpp	0 11 0000 :	Reserved for ARGB1888(AUUU UUUU RRRR RRRR GGGG GGGG BBBB BBBB)
	0 11 0001 :	Reserved for ARGB2888(AAUU UUUU RRRR RRRR GGGG GGGG BBBB BBBB)
	0 11 0010 :	Reserved for ARGB4888(AAAA UUUU RRRR RRRR GGGG GGGG BBBB BBBB)
	0 11 0011 :	Reserved for ARGB8888(AAAA AAAA RRRR RRRR GGGG GGGG BBBB BBBB)
	0 11 0100 :	Reserved for RGB0888(UUUU UUUU RRRR RRRR GGGG GGGG BBBB BBBB)
	0 11 0101-1111	Reserved
8bpp	1 00 0000-0111	Reserved
	1 00 1000 :	Reserved for BGR332 (BBBG GGRR)
	1 00 1001 :	Reserved for BGR233 (BBGG GRRR)
	1 00 1010 :	Reserved for BGR232 (UBBG GGRR)
	1 00 1011 :	Reserved for ABGR1232 (ABBG GGRR)
	1 00 1100-1111	Reserved
16bpp	1 01 0000 :	BGR555 (UBBB BBGG GGGR RRRR)
	1 01 0001 :	BGR565 (BBBB BGGG GGGR RRRR)
	1 01 0010 :	ABGR1555 (ABBB BBGG GGGR RRRR)
	1 01 0011 :	ABGR4444 (AAAA BBBB GGGG RRRR)
	1 01 0100 :	Reserved for ABGR1332 (AUUU UUUU RRRG GGBB)
	1 01 0101 :	Reserved for ABGR2332 (AAUU UUUU RRRG GGBB)
	1 01 0110 :	Reserved for ABGR4332 (AAAA UUUU RRRG GGBB)
	1 01 0111 :	Reserved for ABGR8332 (AAAA AAAA RRRG GGBB)
	1 01 1000 :	Reserved for ABGR1233 (AUUU UUUU RRGG GBBB)
	1 01 1001 :	Reserved for ABGR2233 (AAUU UUUU RRGG GBBB)
	1 01 1010 :	Reserved for ABGR4233 (AAAA UUUU RRGG GBBB)
	1 01 1011 :	Reserved for ABGR8233 (AAAA AAAA RRGG GBBB)
	1 01 1100 :	Reserved
	1 01 1101 :	Reserved for ABGR2232 (AAUU UUUU URRG GGBB)
	1 01 1110 :	Reserved for ABGR4232 (AAAA UUUU URRG GGBB)
	1 01 1111 :	Reserved for ABGR8232 (AAAA AAAA URRG GGBB)
24bpp	1 10 0000 :	Reserved for ABGR1565 (AUUU UUUU BBBB BGGG GGGR RRRR)
	1 10 0001 :	Reserved for ABGR2565 (AAUU UUUU BBBB BGGG GGGR RRRR)
	1 10 0010 :	Reserved for ABGR4565 (AAAA UUUU BBBB BGGG GGGR RRRR)
	1 10 0011 :	Reserved for ABGR8565 (AAAA AAAA BBBB BGGG GGGR RRRR)
	1 10 0100 :	Reserved
	1 10 0101 :	Reserved for ABGR2555 (AAUU UUUU UBBB BBGG GGGR RRRR)
	1 10 0110 :	Reserved for ABGR4555 (AAAA UUUU UBBB BBGG GGGR RRRR)
	1 10 0111 :	Reserved for ABGR8555 (AAAA AAAA UBBB BBGG GGGR RRRR)

	1 10 1000 :	Reserved for BGR888 (BBBB BBBB GGGG GGGG RRRR RRRR)
	1 10 1001-1111	Reserved
32bpp	1 11 0000 :	Reserved for ABGR1888(AUUU UUUU BBBB BBBB GGGG GGGG RRRR RRRR)
	1 11 0001 :	Reserved for ABGR2888(AAUU UUUU BBBB BBBB GGGG GGGG RRRR RRRR)
	1 11 0010 :	Reserved for ABGR4888(AAAA UUUU BBBB BBBB GGGG GGGG RRRR RRRR)
	1 11 0011 :	Reserved for ABGR8888(AAAA AAAA BBBB BBBB GGGG GGGG RRRR RRRR)
	1 11 0100 :	Reserved for BGR0888(UUUU UUUU BBBB BBBB GGGG GGGG RRRR RRRR)
	1 11 0101-1111	Reserved
D[15:10]	Reserved	
D[9:0]	EGDST0PIT	(Destination 0[L] Pitch = EGDSTPIT * 2 Bytes)
	→ A10 ~ A1	
2127h-2124h	Type : Read/Write	Default : xx xx xx xxh
D[31:16]	Reserved	
D[15:0]	EGD0CWrmASK	(Destination 0[L] Color Write Mask)
	XX XX XX	
	1 :	Color Write Enable for the Bit
	0 :	Color Write Disable for the Bit
212Bh-2128h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:1]	EGDST0BAS → A22 ~ A1	(Distination 0[L] Buffer Base Address = EGDST0BAS * 2 Bytes)
D[0]	Reserved	
2139h-2138h	Type : Read/Write	Default : xx xx xx xxh
D[15]	EGPolyStippleTxDir (Stipple mode)	
	0 :	Udx = 1/32 ; Vdy = 1/32
	1 :	Udx = 1/32 ; Vdy = -1/32
D[14:9]	Reserved	
D[8]	EGStippleTxSel (Polygon stipple or Line stipple Texture Select)	
	0 :	Tex0
	1 :	Tex1
D[7:5]	Reserved	
D[4]	EGAALineTxSel (AA Line Texture Select) (0: Tex0; 1: Tex1)	
	0 :	Tex0
	1 :	Tex1
D[3:1]	Reserved	
D[0]	EGAAPointTxSel (AA Point Texture Select)	
	0 :	Tex0
	1 :	Tex1
213Fh-213Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:28]	Reserved	
D[27]	EGFOGZT (Fog with Z lookup Table)	
	0 :	use 1/W lookup
	1 :	use Z lookup
D[26:24]	EGFOGMD (Fog Mode)	
	0 00 :	Constant Fog Mode
	1 00:	Normal Fog Mode
	1 01:	Linear Fog Mode
	1 10:	EXP Fog Mode
	1 11:	EXP2 Fog Mode
	others :	Reserved
D[23:0]	EGFOGC (Fog Color Register)	
	D[23:16]=EGFR (8) (Fog Color R)	
	D[15:8]=EGFG (8) (Fog Color G)	
	D[7:0]=EGFB (8) (Fog Color B)	
2143h-2140h	Type : Read/Write	Default : xx xx xx xxh
D[31:19]	Reserved	
D[18:0]	EGFLEND (19)	(Far Distance used in Linear Fog) (s[7].10)
2147h-2144h	Type : Read/Write	Default : xx xx xx xxh
D[31:19]	Reserved	
D[18:0]	EGFLINVD (19)	(Inverse Distance in Linear Fog) (s[7].10)

214Bh-2148h	Type : Read/Write	Default : xx xx xx xxh
D[31:24]	Reserved for EGFOGF (8)	(Fog Factor for Fog Test)
D[23:18]	Reserved	
D[17:0]	EGFDENST (18)	(Fog Density) (s[7].10 floating format)
214Fh-214Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	Reserved	
2153h-2150h	Type : Read/Write	Default : xx xx xx xxh
D[31:30]	Reserved	
D[29:28]	EGStBUFFM	(Stencil Buffer Color Format)
	00 :	S1
	01 :	S2
	10 :	S4
	11 :	S8
D[27]	Reserved for EGStINSY	(Stencil Buffer in System Memory)
	0 :	Stencil Buffer in External Memory
	1 :	Stencil Buffer in System Memory
D[26:24]	EGStTMD	(Stencil Test Mode)
	000 :	Stencil Test never pass
	001 :	Passes if (<i>Ref & Mask</i>) < (<i>Stbuf & Mask</i>)
	010 :	Passes if (<i>Ref & Mask</i>) = (<i>Stbuf & Mask</i>)
	011 :	Passes if (<i>Ref & Mask</i>) ≤ (<i>Stbuf & Mask</i>)
	100 :	Passes if (<i>Ref & Mask</i>) > (<i>Stbuf & Mask</i>)
	101 :	Passes if (<i>Ref & Mask</i>) ≠ (<i>Stbuf & Mask</i>)
	110 :	Passes if (<i>Ref & Mask</i>) ≥ (<i>Stbuf & Mask</i>)
	111 :	Always Passes
D[23:16]	Reserved	
D[15:8]	EGStREF	(Stencil Reference Value)
	→ 8.0 format	
D[7:0]	EGStMASK	(Stencil Mask Value)
2157h-2154h	Type : Read/Write	Default : xx xx xx xxh
D[31:0]	EGStWrMASK	(Stencil Write Mask)
	XX	
	1 :	Z Write Enable for the Bit
	0 :	Z Write Disable for the Bit
	xxxx xxss	for S1
	xxxx xxss	for S2
	xxxx ssss	for S4
	ssss ssss	for S8
D[23]	Reserved	
D[22:20]	EGStFAIL	(Stencil Test Fail Operation)
	000 :	KEEP (<i>Stnew</i> = <i>Stbuf</i>)
	001 :	ZERO (<i>Stnew</i> = 0x0)
	010 :	REPLACE (<i>Stnew</i> = <i>StRef</i>)
	011 :	INCRSAT (If (<i>Stbuf</i> ≠ <i>StMax</i>) then { <i>Stnew</i> = <i>Stbuf</i> + 1 })
	100 :	DECRSAT (If (<i>Stbuf</i> ≠ <i>StMax</i>) then { <i>Stnew</i> = <i>Stbuf</i> - 1 })
	101 :	INVERT (<i>Stnew</i> = ~ <i>Stbuf</i>)
	110 :	INCR (<i>Stnew</i> = <i>Stbuf</i> + 1)
	111 :	DECR (<i>Stnew</i> = <i>Stbuf</i> - 1)
D[19]	Reserved	
D[18:16]	EGStZFAIL	(Stencil Test Pass and Z Test Fail Operation)
	000 :	KEEP (<i>Stnew</i> = <i>Stbuf</i>)
	001 :	ZERO (<i>Stnew</i> = 0x0)
	010 :	REPLACE (<i>Stnew</i> = <i>StRef</i>)
	011 :	INCRSAT (If (<i>Stbuf</i> ≠ <i>StMax</i>) then { <i>Stnew</i> = <i>Stbuf</i> + 1 })
	100 :	DECRSAT (If (<i>Stbuf</i> ≠ <i>StMax</i>) then { <i>Stnew</i> = <i>Stbuf</i> - 1 })
	101 :	INVERT (<i>Stnew</i> = ~ <i>Stbuf</i>)
	110 :	INCR (<i>Stnew</i> = <i>Stbuf</i> + 1)
	111 :	DECR (<i>Stnew</i> = <i>Stbuf</i> - 1)
D[15]	Reserved	
D[14:12]	EGStZPASS	(Stencil Test Pass and Z Test Pass Operation)
	000 :	KEEP (<i>Stnew</i> = <i>Stbuf</i>)
	001 :	ZERO (<i>Stnew</i> = 0x0)
	010 :	REPLACE (<i>Stnew</i> = <i>StRef</i>)
	011 :	INCRSAT (If (<i>Stbuf</i> ≠ <i>StMax</i>) then { <i>Stnew</i> = <i>Stbuf</i> + 1 })

	100 :	DECRSAT (If (Stbuf ≠ StMax) then { Stnew = Stbuf - 1 })
	101 :	INVERT (Stnew = ~Stbuf)
	110 :	INCR (Stnew = Stbuf + 1)
	111 :	DECR (Stnew = Stbuf - 1)
D[11:10]	Reserved	
D[9:0]	EGStPIT → A10 ~ A1	(Stencil Buffer Pitch = EGStPIT * 2 Bytes)
215Bh-2158h	Type : Read/Write	Default : xx xx xx xxh
D[31:23]	Reserved	
D[22:0]	EGStBAS → A22 ~ A1	(Stencil Buffer Base Address = EGStBAS * 2 Bytes)
D[0]	Reserved	
215Fh-215Ch	Type : Read/Write	Default : xx xx xx xxh
D[31]	Reserved	
D[30]	EGenABLSepSet	(Enable Alpha Blending Separate Setting)
	0	Disable Alpha Blending Separate Setting
	1	Enable Alpha Blending Separate Setting
D[29:27]	EGABLEqMode	(Alpha Blending Equation Mode)
	000 :	Add : Cout = Csrc*BFsrc + Cdst*BFdst
	001 :	Sub : Cout = Csrc*BFsrc - Cdst*BFdst
	010 :	Max : Cout = Max (Csrc , Cdst)
	011 :	Min : Cout = Min (Csrc , Cdst)
	000 :	Reserved
	101 :	Sub : Cout = - (Csrc*BFsrc - Cdst*BFdst)
D[26:24]	EGCBLEqMode	(Color Blending Equation Mode)
	000 :	Add : Cout = Csrc*BFsrc + Cdst*BFdst
	001 :	Sub : Cout = Csrc*BFsrc - Cdst*BFdst
	010 :	Max : Cout = Max (Csrc , Cdst)
	011 :	Min : Cout = Min (Csrc , Cdst)
	000 :	Reserved
	101 :	Sub : Cout = - (Csrc*BFsrc - Cdst*BFdst)
D[23 : 21]	Reserved	
D[20:12]	EGDDstAl	(Default Destination Alpha) (9)
D[11 : 9]	Reserved	
D[8:4]	EGCBLsrc	(Source Blending Mode)
	00000 :	BLEND_ZERO
		Blend factor is (0, 0, 0, 0)
	00001 :	BLEND_ONE
		Blend factor is (1, 1, 1, 1)
	00010 :	BLEND_SRC_COLOR
		Blend factor is (R(s), G(s), B(s), A(s))
	00011 :	BLEND_INV_SRC_COLOR
		Blend factor is (1-R(s), 1-G(s), 1-B(s), 1-A(s))
	00100 :	BLEND_SRC_ALPHA
		Blend factor is (A(s), A(s), A(s), A(s))
	00101 :	BLEND_INV_SRC_ALPHA
		Blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
	00110 :	BLEND_DST_ALPHA
		Blend factor is (A(d), A(d), A(d), A(d))
	00111 :	BLEND_INV_DST_ALPHA
		Blend factor is (1-A(d), 1-A(d), 1-A(d))
	01000 :	BLEND_DST_COLOR
		Blend factor is (R(d), G(d), B(d), A(d))
	01001 :	BLEND_INV_DST_COLOR
		Blend factor is (1-R(d), 1-G(d), 1-B(d), 1-A(d))
	01010 :	BLEND_SRC_ALPHA_SAT
		Blend factor is (f, f, f, 1); f = min (A(s), 1-A(d))
	01011 :	BLEND_BOTH_SRC_ALPHA
		Source blend factor is (A(s), A(s), A(s), A(s))
		Destination blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
	01100 :	BLEND_BOTH_INV_SRC_ALPHA
		Source blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
		Destination blend factor is (A(s), A(s), A(s), A(s))
	01101 :	CONSTANT_COLOR
		Blend factor is (R(c), G(c), B(c), A(c))
	01110 :	ONE_MINUS_CONSTANT_COLOR
		Blend factor is (1-R(c), 1-G(c), 1-B(c), 1-A(c))
	01111 :	CONSTANT_ALPHA
		Blend factor is (A(c), A(c), A(c), A(c))

	10000 :	ONE_MINUS_CONSTANT_ALPHA
		Blend factor is (1-A(c), 1-A(c), 1-A(c), 1-A(c))
	11111-10001 :	Reserved
D[3:0]	EGCBLDST	(Destination Blending Mode)
	0000 :	BLEND_ZERO
		Blend factor is (0, 0, 0, 0)
	0001 :	BLEND_ONE
		Blend factor is (1, 1, 1, 1)
	0010 :	BLEND_SRC_COLOR
		Blend factor is (R(s), G(s), B(s), A(s))
	0011 :	BLEND_INV_SRC_COLOR
		Blend factor is (1-R(s), 1-G(s), 1-B(s), 1-A(s))
	0100 :	BLEND_SRC_ALPHA
		Blend factor is (A(s), A(s), A(s), A(s))
	0101 :	BLEND_INV_SRC_ALPHA
		Blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
	0110 :	BLEND_DST_ALPHA
		Blend factor is (A(d), A(d), A(d), A(d))
	0111 :	BLEND_INV_DST_ALPHA
		Blend factor is (1-A(d), 1-A(d), 1-A(d) , 1-A(d))
	1000 :	BLEND_DST_COLOR
		Blend factor is (R(d), G(d), B(d), A(d))
	1001 :	BLEND_INV_DST_COLOR
		Blend factor is (1-R(d), 1-G(d), 1-B(d), 1-A(d))
	1010 :	BLEND_SRC_ALPHA_SAT
		Blend factor is (f, f, f, 1); f = min (A(s), 1-A(d))
	1011 :	CONSTANT_COLOR
		Blend factor is (R(c), G(c), B(c), A(c))
	1100 :	ONE_MINUS_CONSTANT_COLOR
		Blend factor is (1-R(c), 1-G(c), 1-B(c), 1-A(c))
	1101 :	CONSTANT_ALPHA
		Blend factor is (A(c), A(c), A(c), A(c))
	1110 :	ONE_MINUS_CONSTANT_ALPHA
		Blend factor is (1-A(c), 1-A(c), 1-A(c), 1-A(c))
	1111:	Reserved

2163h-2160h	Type : Read/Write	Default : xx xx xx xxh
D[31:26]	EGBLCstCA (6)	(Alpha Blending Constant Color – A Value)
D[25:24]	Reserved	
D[23:19]	EGBLCstCR (5)	(Alpha Blending Constant Color – R Value)
D[18:16]	Reserved	
D[15:10]	EGBLCstCG (6)	(Alpha Blending Constant Color – G Value)
D[9:8]	Reserved	
D[7:3]	EGBLCstCB (5)	(Alpha Blending Constant Color – B Value)
D[2:0]	Reserved	

2167h-2164h	Type : Read/Write	Default : xx xx xx xxh
<i>Clipping Value for Top and Bottom</i>		
D[31:26]	Reserved	
D[25:16]	EGCLtop (s9)	(Top Clipping Value)
D[15:10]	Reserved	
D[9:0]	EGCLbot (s9)	(Bottom Clipping Value)

216Bh-2168h	Type : Read/Write	Default : xx xx xx xxh
D[31:26]	Reserved	
D[25:16]	EGCLleft (s9)	(Left Clipping Value)
D[15:10]	Reserved	
D[9:0]	EGCLrgt (s9)	(Right Clipping Value)

216Fh-216Ch	Type : Read/Write	Default : xx xx xx xxh
D[31:9]	Reserved	
D[8:4]	EGABLsrc	(Alpha Source Blending Mode)
	00000 :	BLEND_ZERO
		Blend factor is (0, 0, 0, 0)
	00001 :	BLEND_ONE
		Blend factor is (1, 1, 1, 1)
	00010 :	BLEND_SRC_COLOR
		Blend factor is (R(s), G(s), B(s), A(s))

00011 : **BLEND_INV_SRC_COLOR**
 Blend factor is (1-R(s), 1-G(s), 1-B(s), 1-A(s))
00100 : **BLEND_SRC_ALPHA**
 Blend factor is (A(s), A(s), A(s), A(s))
00101 : **BLEND_INV_SRC_ALPHA**
 Blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
00110 : **BLEND_DST_ALPHA**
 Blend factor is (A(d), A(d), A(d), A(d))
00111 : **BLEND_INV_DST_ALPHA**
 Blend factor is (1-A(d), 1-A(d), 1-A(d))
01000 : **BLEND_DST_COLOR**
 Blend factor is (R(d), G(d), B(d), A(d))
01001 : **BLEND_INV_DST_COLOR**
 Blend factor is (1-R(d), 1-G(d), 1-B(d), 1-A(d))
01010 : **BLEND_SRC_ALPHA_SAT**
 Blend factor is (f, f, f, 1); f = min (A(s), 1-A(d))
01011 : **BLEND_BOTH_SRC_ALPHA**
 Source blend factor is (A(s), A(s), A(s), A(s))
 Destination blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
01100 : **BLEND_BOTH_INV_SRC_ALPHA**
 Source blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
 Destination blend factor is (A(s), A(s), A(s), A(s))
01101 : **CONSTANT_COLOR**
 Blend factor is (R(c), G(c), B(c), A(c))
01110 : **ONE_MINUS_CONSTANT_COLOR**
 Blend factor is (1-R(c), 1-G(c), 1-B(c), 1-A(c))
01111 : **CONSTANT_ALPHA**
 Blend factor is (A(c), A(c), A(c), A(c))
10000 : **ONE_MINUS_CONSTANT_ALPHA**
 Blend factor is (1-A(c), 1-A(c), 1-A(c), 1-A(c))
11111-10001 : Reserved

D[3:0]

EGABLDST (Alpha Destination Blending Mode)
0000 : **BLEND_ZERO**
 Blend factor is (0, 0, 0, 0)
0001 : **BLEND_ONE**
 Blend factor is (1, 1, 1, 1)
0010 : **BLEND_SRC_COLOR**
 Blend factor is (R(s), G(s), B(s), A(s))
0011 : **BLEND_INV_SRC_COLOR**
 Blend factor is (1-R(s), 1-G(s), 1-B(s), 1-A(s))
0100 : **BLEND_SRC_ALPHA**
 Blend factor is (A(s), A(s), A(s), A(s))
0101 : **BLEND_INV_SRC_ALPHA**
 Blend factor is (1-A(s), 1-A(s), 1-A(s), 1-A(s))
0110 : **BLEND_DST_ALPHA**
 Blend factor is (A(d), A(d), A(d), A(d))
0111 : **BLEND_INV_DST_ALPHA**
 Blend factor is (1-A(d), 1-A(d), 1-A(d) , 1-A(d))
1000 : **BLEND_DST_COLOR**
 Blend factor is (R(d), G(d), B(d), A(d))
1001 : **BLEND_INV_DST_COLOR**
 Blend factor is (1-R(d), 1-G(d), 1-B(d), 1-A(d))
1010 : **BLEND_SRC_ALPHA_SAT**
 Blend factor is (f, f, f, 1); f = min (A(s), 1-A(d))
1011 : **CONSTANT_COLOR**
 Blend factor is (R(c), G(c), B(c), A(c))
1100 : **ONE_MINUS_CONSTANT_COLOR**
 Blend factor is (1-R(c), 1-G(c), 1-B(c), 1-A(c))
1101 : **CONSTANT_ALPHA**
 Blend factor is (A(c), A(c), A(c), A(c))
1110 : **ONE_MINUS_CONSTANT_ALPHA**
 Blend factor is (1-A(c), 1-A(c), 1-A(c), 1-A(c))
1111: Reserved

2173h-2170h D[31:0]	Type : Read/Write EGRerSRegA	Default : xx xx xx xxh (Reserved for Software Register A)
2177h-2174h D[31:0]	Type : Read/Write EGRerSRegB	Default : xx xx xx xxh (Reserved for Software Register B)
217Bh-2178h D[31:0]	Type : Read/Write EGRerSRegC	Default : xx xx xx xxh (Reserved for Software Register C)
217Fh-217Ch D[31:0]	Type : Read/Write EGRerSRegD	Default : xx xx xx xxh (Reserved for Software Register D)
2183h-2180h D[31:0]	Type : Read/Write Reserved for EGSZsum (s[8].23)	Default : xx xx xx xxh (Z Sum for Stereo Read back)
2187h-2184h D[31:0]	Type : Read/Write Reserved for EGSZmax (s[8].23)	Default : xx xx xx xxh (Z Maximum for Stereo Read back)
218Bh-2188h D[31:0]	Type : Read/Write Reserved for EGSZmin (s[8].23)	Default : xx xx xx xxh (Z Minimum for Stereo Read back)
218Fh-218Ch D[31:26] D[25:0]	Type : Read/Write Reserved Reserved for EGSZfirecnt (26.)	Default : xx xx xx xxh (Z total fire count for Stereo Read back)
2193h-2190h D[31:24] D[23:16] D[15:8] D[7:0]	Type : Read/Write Reserved for EGTxIdleTim Reserved for EGTxGndTim Reserved for EGZrThrhdTim Reserved for EGZwThrhdTim	Default : xx xx xx xxh (Texture idle Timer) (Texture Grand Timer) (Z Read Threshold Timer) (Z Write Threshold Timer)
2197h-2194h D[31:16] D[15:8] D[7:0]	Type : Read/Write Reserved Reserved for EGCrThrhdTim Reserved for EGCwThrhdTim	Default : xx xx xx xxh (Color Read Threshold Timer) (Color Write Threshold Timer)
219Bh-2198h D[31] D[30:28] D[27] D[26:24] D[23] D[22:20] D[19] D[18:16] D[15] D[14:12] D[11] D[10:8] D[7] D[6:4] D[3] D[2:0]	Type : Read/Write Reserved EGStrRqThrhd Reserved EGStwRqThrhd Reserved EGVqRqThrhd Reserved EGTxRqThrhd Reserved EGCrRqThrhd Reserved EGCwRqThrhd Reserved EGZrRqThrhd Reserved EGZwRqThrhd	Default : xx xx xx xxh (Z Read Request Threshold) (Z Write Request Threshold) (Vertex Read Request Threshold) (Texture Request Threshold) (Color Read Request Threshold) (Color Write Request Threshold) (Z Read Request Threshold) (Z Write Request Threshold)
219Fh-219Ch D[31:0]	Type : Read/Write Reserved	Default : xx xx xx xxh
21A3h-21A0h D[31:24]	Type : Read/Write EGTX0FM D[31] 0: 1: D[30:28] 000:	Default : 00 03 00 00h (Texture0 Format) ARGB ordering in RGB format RGBA ordering in RGB format Palette Index format

	001:	Intensity format and Compress format
	010:	YUV format
	011:	Luminance format
	100:	Alpha format
	101:	RGB_8bpp format
	110:	RGB_16bpp format
	111:	RGB_32bpp format
	D[31:24]	
	0 000 0000	Index4 with RGB555
<i>Palette</i>	0 000 0001	Index4 with RGB565
	0 000 0010	Index4 with ARGB1555
	0 000 0011	Index4 With ARGB4444
	0 000 0100	Reserved for Index7 with RGB555
	0 000 0101	Reserved for Index7 with RGB565
	0 000 0110	Reserved for Index7 with ARGB1555
	0 000 0111	Reserved for Index7 With ARGB4444
	0 000 1000	Index8 with RGB555
	0 000 1001	Index8 with RGB565
	0 000 1010	Index8 with ARGB1555
	0 000 1011	Index8 With ARGB4444
	1 000 0000	Index4 with BGR555
	1 000 0001	Index4 with BGR565
	1 000 0010	Index4 with RGBA5551
	1 000 0011	Index4 with RGBA4444
	1 000 0100	Index4 with ABGR1555
	1 000 0101	Index4 with ABGR4444
	1 000 0110	Reserved
	1 000 0111	Reserved
	1 000 1000	Index8 with BGR555
	1 000 1001	Index8 with BGR565
	1 000 1010	Index8 with RGBA5551
	1 000 1011	Index8 with RGBA4444
	1 000 1100	Index8 with ABGR1555
	1 000 1101	Index8 with ABGR4444
	0 000 1010	Reserved for Index to UUY422
	0 000 1011	Reserved for Index to VUY422
	0 000 1100	Reserved for Index to YUV411
	0 000 1101 - 0 000 1111	Reserved
	0 001 0000	Reserved for I1 (I)
<i>Intensity</i>	0 001 0001	Reserved for I2 (II)
	0 001 0010	I4 (IIII)
	0 001 0011	I8 (IIIIIIII)
	0 001 0100 - 0 001 1000	Reserved
	0 001 1001	Reserved for DXT1
<i>Compressed</i>	0 001 1010	Reserved for DXT2
	0 001 1011	Reserved for DXT3
	0 001 11xx	Reserved
	0 010 0000	Reserved for YUV422 (Y ₀ Y ₁ Y ₂ Y ₃ Y ₄ Y ₅ Y ₆ Y ₇ C ₀ C ₁ C ₂ C ₃ C ₄ C ₅ C ₆ C ₇ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ C _v C _v C _v C _v C _v C _v C _v C _v)
<i>YUV</i>	0 010 0001	Reserved for YVU422 (Y ₀ Y ₁ Y ₂ Y ₃ Y ₄ Y ₅ Y ₆ Y ₇ C ₀ C ₁ C ₂ C ₃ C ₄ C ₅ C ₆ C ₇ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ C _u C _u C _u C _u C _u C _u C _u C _u)
	0 010 0010	Reserved for UUY422 (C ₀ C ₁ C ₂ C ₃ C ₄ C ₅ C ₆ C ₇ Y ₀ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C _v C _v C _v C _v C _v C _v C _v Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀)
	0 010 0011	Reserved for VUY422 (C _v C _v C _v C _v C _v C _v C _v Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C ₀ C ₀ C ₀ C ₀ C ₀ C ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀)
	0 010 0100	Reserved for YUV411 (Y ₃ Y ₃ Y ₃ Y ₃ Y ₃ Y ₃ Y ₂ Y ₂ Y ₂ Y ₂ Y ₂ Y ₂ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ in Y buffer, C ₀ C ₀ C ₀ C ₀ C ₀ C ₀ in U buffer and C _v C _v C _v C _v C _v C _v in V buffer)
	0 010 0101 - 0 010 1111	Reserved
	0 011 0000	Reserved for L1 (L)
<i>Luminance</i>	0 011 0001	Reserved for L2 (LL)
	0 011 0010	L4 (LLLL)

	0 011 0011	L8 (LLLLLLL)	
	0 011 0100	Reserved for AL11 (AL)	
	0 011 0101	AL44 (AAAALLLL)	
	0 011 0111	AL26 (AALLLLL)	
	0 011 1000	AL88 (AAAAAAAA LLLLLLL)	
	0 011 1001 - 0 011 1111	Reserved	
	1 011 0101	LA44 (LLLAAAA)	
	1 011 0111	LA62 (LLLLLAA)	
	1 011 1000	LA88 (LLLLLLL AAAAAAA)	
<i>Alpha</i>	0 100 0000	Reserved for A1 (A)	
	0 100 0001	Reserved for A2 (AA)	
	0 100 0010	A4 (AAAA)	
	0 100 0011	A8 (AAAAAAAA)	
	0 100 0100 - 0 100 1111	Reserved	
<i>(A)RGB8bpp</i>	0 101 0000	RGB332 (RRRGGBB)	
	0 101 0001	RGB233 (RRGGBBB)	
	0 101 0010	RGB323 (RRRGGBB)	
	0 101 0011	ARGB1232 (ARRGGGBB)	
	0 101 0100	ARGB2222 (AARRGGBB)	
	0 101 0101 - 0 110 1111	Reserved	
<i>(A)RGB16bpp</i>	0 110 0000	RGB555 (xRRRRRGG GGGBBBB)	
	0 110 0001	RGB565 (RRRRRGGG GGGBBBB)	
	0 110 0010	ARGB1555 (ARRRRRGG GGGBBBB)	
	0 110 0011	ARGB4444 (AAAARRRR GGGBBBB)	
	0 110 0100 - 0 110 1111	Reserved	
<i>(A)RGB32bpp</i>	0 111 0000	Reserved for ARGB1888 (Axxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0001	Reserved for ARGB2888 (AAxxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0010	Reserved for ARGB4888 (AAAAxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0011	Reserved for ARGB8888 (AAAAAAAA RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0100	Reserved for ARGB0888 (xxxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0101 - 1 100 1111	Reserved	
<i>(A)BGR8bpp</i>	1 101 0000	BGR332 (BBGGGRR)	
	1 101 0001	BGR233 (BBGGGRR)	
	1 101 0010	BGR323 (BBGGGRR)	
	1 101 0011	RGBA1232 (RRGGGBBA)	
	1 101 0100	RGBA2222 (RRGGGBBA)	
	1 101 0101	ABGR1232 (ABGGGRR)	
	1 101 0110	ABRG2222 (AABGGRR)	
	1 101 0111 - 1 110 1111	Reserved	
<i>(A)BGR16bpp</i>	1 110 0000	BGR555 (xBBBBBGG GGGRRRR)	
	1 110 0001	BGR565 (BBBBBGGG GGGRRRR)	
	1 110 0010	RGBA5551 (RRRRRGG GGGBBBBBA)	
	1 110 0011	RGBA4444 (RRRRGGGG BBBBAAAA)	
	1 110 0100	ABGR1555 (ABBBBBGG GGGRRRR)	
	1 110 0101	ABGR4444 (AAAABBBBGGGG RRRR)	
	1 110 0110 - 1 110 1111	Reserved	
<i>(A)BGR32bpp</i>	1 111 0000	Reserved for ABGR1888 (Axxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0001	Reserved for ABGR2888 (AAxxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0010	Reserved for ABGR4888 (AAAAxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0011	Reserved for ABGR8888 (AAAAAAAA BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0100	Reserved for ABGR0888 (xxxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0101 - 1 111 1111	Reserved	
D[23:16]	EGTX0MPMD	(Texture0 Mapping Mode)	
	D[18:16]	U-direction	
	000 :	With Border Color outside Texture along U-direction	
	001 :	Wrap along U-direction	default
	010 :	Mirror along U-direction	
	011 :	Clamp along U-direction	
	D[21:19]	V-direction	

	000 :	With Border Color outside Texture along V-direction	
	001 :	Wrap along V-direction	default
	010 :	Mirror along V-direction	
	011 :	Clamp along V-direction	
D[15]	EGTX0SwizFlg	Texture0 Texture swizzle	
	0:	Texture 0 No Swizzle	
	1:	Texture 0 Sizzle	
D[14]	Rerved EGTX0CubMPMD	Texture 0 Cubic Mapping Mode	
	0	Mapping Mode base on EGTX0MPMD	
	1	Special Border Mapping Mode	
D[13]	Reserved for EGTX0Cubfla	Texture0 Cubic Mapping flg	
	0	Non Cubic Mapping in Texture0	
	1	Cubic Mapping in Texture0	
D[12]	Reserved for EGTX0UVPOLAR	(Set Signed or Unsigned Texture0 of YUV Format)	
	0:	Unsigned U, V format	default
	1:	Signed U, V format	
D[11:8]	EGTX0LV	(Number of Texture0's Level)	
	0000:	Single Texture0(non Mip-Map)	default
	0001 – 1000	Texture0 with Multiple Level and this number should small than or equal to max(EGTX0W, EGTX0H)	
	1001 – 1111	Reserved	
D[7:4]	Reserved		
D[3:2]	Reserved		
D[1:0]	EGTXB1StNum	(Number of Texture Blending Stage)	
	00:	One Stage	default
	01:	Two Stage	
21A7h-21A4h	Type : Read/Write	Default : x0 00 00 00h	
D[31:20]	Reserved for EGTX0INSY	(Level(i) of Texture Memory Locate in System Memory or not for Texture0)	
D[19:18]	EGTX0FLMAX	(Texture0 Magnified Filter Mode)	
	00:	Nearest	default
	01:	Linear	
	10:	Reserved for Anisotropic	
	11:	Reserved	
D[17:15]	EGTX0FLMIF	(Texture0 Minified Filter Mode)	
	000:	Nearest(non Mip-Map)	default
	001	Linear(non Mip-Map)	
	010	Nearest-Mip-Nearest	
	011	Nearest-Mip-Linear	
	100	Linear-Mip-Nearest	
	101	Linear-Mip-Linear	
	110	Reserved for Nearest-Mip-Anisotropic	
	111	Reserved for Linear-Mip-Anisotropic	
D[14:5]	EGTX0MLBS	(Texture0 Mip Lod Bias) 2's complement s4.5	
D[4]	Reserved		
D[3:0]	Reserved for EGTX0ANISTRPY	(Texture0 Anisotropy Filtering Ratio Limit)	
21ABh-21A8h	Type : Read/Write	Default : xx 00 00 00h	
D[31:30]	EGTXTRSMOD	Texture 0 and 1 transparency mode	
	00	Texel Transparency	
	10	Alpha Transparency	
	X1	Texture blending transparency	
D[29:29]	Reserved		
D[28:24]	EGTXTRSHratio (5)	(Ratio for texture transparence test) If the percentage of transparent part is over this ratio, this pixel must be transparent.absolutely	
D[23:21]	Reserved		
D[20:12]	EGTX0W	(Texture0' Width of Level0)	
D[11:9]	reserved		
D[8:0]	EGTX0H	(Texture0' Height of Level0)	
21AFh-21ACh	Type : Read/Write	Default : xx 00 00 00h	
D[31:26]	EGTX0TRSHA	(Texture0 Transparency A-channel Heigh Threshold Value)	
D[25:24]	Reserved		

D[23:19]	EGTX0TRSHR	(Texture0 Transparency R-channel Heigh Threshold Value)
D[18:16]	Reserved	
D[15:10]	EGTX0TRSHG	(Texture0 Transparency G-channel Heigh Threshold Value)
D[9:8]	Reserved	
D[7:3]	EGTX0TRSHB	(Texture0 Transparency B-channel Heigh Threshold Value)
D[2:0]	Reserved	

Whenever the R,G,B values are between these threshold and EgenTX0TR is set as '1', this texel will be bypassed.

21B3h-21B0h	Type : Read/Write	Default : xx 00 00 00h
D[31:26]	EGTX0TRSLA	(Texture0 Transparency A-channel Low Threshold Value)
D[25:24]	Reserved	
D[23:19]	EGTX0TRSLR	(Texture0 Transparency R-channel Low Threshold Value)
D[18:16]	Reserved	
D[15:10]	EGTX0TRSLG	(Texture0 Transparency G-channel Low Threshold Value)
D[9:8]	Reserved	
D[7:3]	EGTX0TRSLB	(Texture0 Transparency B-channel Low Threshold Value)
D[2:0]	Reserved	

Whenever the R,G,B values are between these threshold and EgenTX0TR is set as '1', this texel will be bypassed.

21B7h-21B4h	Type : Read/Write	Default : xx 00 00 00h
D[31:26]	EGTX0CTBA (6)	(A-channel of Border Color for Texture0)
D[25:24]	Reserved	
D[23:19]	EGTX0CTBR (5)	(R-channel of Border Color for Texture0)
D[18:16]	Reserved	
D[15:10]	EGTX0CTBG (6)	(G-channel of Border Color for Texture0)
D[9:8]	Reserved	
D[7:3]	EGTX0CTBB (5)	(B-channel of Border Color for Texture0)
D[2:0]	Reserved	

21BBh-21B8h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L0BAS	(Texture0 Level 0 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L0BAS x 2 bytes)
D[0]	Reserved	

21BFh-21BCh	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L1BAS	(Texture0 Level 1 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L1BAS x 2 bytes)
D[0]	Reserved	

21C3h-21C0h	Type : Read/Write	Default : 00 00 00-00h
D[22:1]	EGTX0L2BAS	(Texture0 Level 2 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L2BAS x 2 bytes)
D[1:0]	Reserved	

21C7h-21C4h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L3BAS	(Texture0 Level 3 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L3BAS x 2 bytes)
D[0]	Reserved	

21CBh-21C8h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L4BAS	(Texture0 Level 4 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L4BAS x 2 bytes)
D[0]	Reserved	

21CFh-21CCh	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L5BAS	(Texture0 Level 5 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L5BAS x 2 bytes)
D[0]	Reserved	

21D3h-21D0h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L6BAS	(Texture0 Level 6 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX0L6BAS x 2 bytes)
D[0]	Reserved	

21D7h-21D4h	Type : Read/Write	Default : 00 00 00 00h
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D[22:1]	EGTX0L7BAS	(Texture0 Level 7 Base Address : Multiple of 2 Bytes)
D[0]	Reserved	A22 ~ A1 (Base = EGTX0L7BAS x 2 bytes)
21DBh-21D8h	Type: Read/Write	Default : 00 00 00 00h
D[22:1]	EGTX0L8BAS	(Texture0 Level 8 Base Address : Multiple of 2 Bytes)
D[0]	Reserved	A22 ~ A1 (Base = EGTX0L8BAS x 2 bytes)
21DFh-21DCh	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	Reserved for EGTX0L9BAS	(Texture0 Level 9 Base Address : Multiple of 2 Bytes)
D[0]	Reserved	A22 ~ A1 (Base = EGTX0L9BAS x 2 bytes)
21E3h-21E0h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	Reserved for EGTX0L10BAS	(Texture0 Level 10 Base Address : Multiple of 2 Bytes)
D[0]	Reserved	A22 ~ A1 (Base = EGTX0L10BAS x 2 bytes)
21E7h-21E4h	Type : Read/Write	Default : 00 00 00 00h
D[22:1]	Reserved for EGTX0L11BAS	(Texture0 Level 11 Base Address : Multiple of 2 Bytes)
D[0]	Reserved	A22 ~ A1 (Base = EGTX0L11BAS x 2 bytes)
21EBh-21E8h	Type : Read/Write	Default : x0 00 x0 00h
D[31:28]	Reserved	
D[27:16]	EGTX0L1PITCH	(Texture0 Level 1 Pitch)
	D[27:24]	Exponential of Pitch
	D[23:16]	Mantissa of Pitch
		the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12]	Reserved	
D[11:0]	EGTX0L0PITCH	(Texture0 Level 0 Pitch)
	D[11:8]	Exponential of Pitch
	D[7:0]	Mantissa of Pitch
		the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
21EFh-21ECh	Type : Read/Write	Default : x0 00 x0 00h
D[31:28]	Reserved	
D[27:16]	EGTX0L3PITCH	(Texture0 Level 3 Pitch)
	D[27:24]	Exponential of Pitch
	D[23:16]	Mantissa of Pitch
		the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12]	Reserved	
D[11:0]	EGTX0L2PITCH	(Texture0 Level 2 Pitch)
	D[11:8]	Exponential of Pitch
	D[7:0]	Mantissa of Pitch
		the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
21F3h-21F0h	Type : Read/Write	Default : x0 00 x0 00h
D[31:28]	Reserved	
D[27:16]	EGTX0L5PITCH	(Texture0 Level 5 Pitch)
	D[27:24]	Exponential of Pitch
	D[23:16]	Mantissa of Pitch
		the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12]	Reserved	
D[11:0]	EGTX0L4PITCH	(Texture0 Level 4 Pitch)
	D[11:8]	Exponential of Pitch
	D[7:0]	Mantissa of Pitch
		the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
21F7h-21F4h	Type : Read/Write	Default : x0 00 x0 00h
D[31:28]	Reserved	

D[27:16]	EGTX0L7PITCH D[27:24] D[23:16]	(Texture0 Level 7 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to D[23:16]*2^D[27:24]
D[15:12] D[11:0]	Reserved EGTX0L6PITCH D[11:8] D[7:0]	(Texture0 Level 6 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to D[7:0]*2^D[11:8]

21FBh-21F8h **Type : Read/Write** **Default : x0 00 x0 00h**

D[31:28] D[27:16]	Reserved Reserved for EGTX0L9PITCH D[27:24] D[23:16]	(Texture0 Level 9 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to D[23:16]*2^D[27:24]
D[15:12] D[11:0]	Reserved EGTX0L8PITCH D[11:8] D[7:0]	(Texture0 Level 8 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to D[7:0]*2^D[11:8]

21FFh-21FCh **Type : Read/Write** **Default : x0 00 x0 00h**

D[31:12] D[11:0]	Reserved EGTX0L10PITCH D[11:8] D[7:0]	(Texture0 Level 10 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to D[7:0]*2^D[11:8]
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2203h-2200h **Type : Read/Write** **Default : 00 03 00 00h**
(Texture1 Format)

D[31:24]	EGTX1FM D[31]	ARGB ordering in RGB format ABGR ordering in BGR format
	0:	Palette Index format
	1:	Intensity format and Compress format
D[30:28]	000:	YUV format
	001:	Luminance format
	010:	Alpha format
	011:	RGB_8bpp format
	100:	RGB_16bpp format
	101:	RGB_32bpp format
	110:	
	111:	
D[31:24]	0 000 0000	Index4 with RGB555
<i>Palette</i>	0 000 0001	Index4 with RGB565
	0 000 0010	Index4 with ARGB1555
	0 000 0011	Index4 With ARGB4444
	0 000 0100	Reserved for Index7 with RGB555
	0 000 0101	Reserved for Index7 with RGB565
	0 000 0110	Reserved for Index7 with ARGB1555
	0 000 0111	Reserved for Index7 With ARGB4444
	0 000 1000	Index8 with RGB555
	0 000 1001	Index8 with RGB565
	0 000 1010	Index8 with ARGB1555
	0 000 1011	Index8 With ARGB4444
	1 000 0000	Index4 with BGR555
	1 000 0001	Index4 with BGR565
	1 000 0010	Index4 with RGBA5551
	1 000 0011	Index4 with RGBA4444
	1 000 0100	Index4 with ABGR1555
	1 000 0101	Index4 with ABGR4444
	1 000 0110	Reserved
	1 000 0111	Reserved
	1 000 1000	Index8 with BGR555
	1 000 1001	Index8 with BGR565

	1 000 1010	Index8 with RGBA5551
	1 000 1011	Index8 with RGBA4444
	1 000 1100	Index8 with ABGR1555
	1 000 1101	Index8 with ABGR4444
	0 000 1000	Reserved for Index to YUV422
	0 000 1001	Reserved for Index to YVU422
	0 000 1010	Reserved for Index to UUY422
	0 000 1011	Reserved for Index to VUY422
	0 000 1100	Reserved for Index to YUV411
	0 000 1101 - 0 000 1111	Reserved
<i>Intensity</i>	0 001 0000	Reserved for I1 (I)
	0 001 0001	Reserved for I2 (II)
	0 001 0010	I4 (IIII)
	0 001 0011	I8 (IIIIIII)
	0 001 0100 - 0 001 1000	Reserved
<i>Compressed</i>	0 001 1001	Reserved for DXT1
	0 001 1010	Reserved for DXT2
	0 001 1011	Reserved for DXT3
	0 001 11xx	Reserved
<i>YUV</i>	0 010 0000	Reserved for YUV422 (Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C _u C _u C _u C _u C _u C _u Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ C _v C _v C _v C _v C _v C _v)
	0 010 0001	Reserved for YVU422 (Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C _v C _v C _v C _v C _v C _v Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ C _u C _u C _u C _u C _u C _u)
	0 010 0010	Reserved for UUY422 (C _u C _u C _u C _u C _u C _u Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C _v C _v C _v C _v C _v C _v Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀)
	0 010 0011	Reserved for VUY422 (C _v C _v C _v C _v C _v C _v Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ C _u C _u C _u C _u C _u C _u Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀)
	0 010 0100	Reserved for YUV411 (Y ₃ Y ₃ Y ₃ Y ₃ Y ₃ Y ₃ Y ₂ Y ₂ Y ₂ Y ₂ Y ₂ Y ₂ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₁ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ Y ₀ in Y buffer, C _u C _u C _u C _u C _u C _u in U buffer and C _v C _v C _v C _v C _v C _v in V buffer)
	0 010 0101 - 0 010 1111	Reserved
<i>Luminance</i>	0 011 0000	Reserved for L1 (L)
	0 011 0001	Reserved for L2 (LL)
	0 011 0010	L4 (LLLL)
	0 011 0011	L8 (LLLLLLLL)
	0 011 0100	Reserved for AL11 (AL)
	0 011 0101	AL44 (AAAALLLL)
	0 011 0111	AL26 (AALLLLLL)
	0 011 1000	AL88 (AAAAAAAAA LLLLLLLL)
	0 011 1001 - 0 011 1111	Reserved
	1 011 0101	LA44 (LLLLAAAA)
	1 011 0111	LA62 (LLLLLLAA)
	1 011 1000	LA88 (LLLLLLLL AAAAAAAAA)
<i>Alpha</i>	0 100 0000	Reserved for A1 (A)
	0 100 0001	Reserved for A2 (AA)
	0 100 0010	A4 (AAAA)
	0 100 0011	A8 (AAAAAAAAA)
	0 100 0100 - 0 100 1111	Reserved
<i>(A)RGB8bpp</i>	0 101 0000	RGB332 (RRRGGGBB)
	0 101 0001	RGB233 (RRGGBBBB)
	0 101 0010	RGB323 (RRRGGBB)
	0 101 0011	ARGB1232 (ARRGGGBB)
	0 101 0100	ARGB2222 (AARRGGBB)
	0 101 0101 - 0 110 1111	Reserved
<i>(A)RGB16bpp</i>	0 110 0000	RGB555 (xRRRRRGG GGGBBBBB)
	0 110 0001	RGB565 (RRRRRGGG GGGBBBBB)
	0 110 0010	ARGB1555 (ARRRRRGG GGGBBBBB)
	0 110 0011	ARGB4444 (AAAARRRR GGGBBBBB)
	0 110 0100 - 0 110 1111	Reserved
<i>(A)RGB32bpp</i>	0 111 0000	Reserved for ARGB1888 (Axxxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)

	0 111 0001	Reserved for ARGB2888 (Axxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0010	Reserved for ARGB4888 (AAAAxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0011	Reserved for ARGB8888 (AAAAAAAAA RRRRRRRR GGGGGGGG BBBBBBBB)	
	0 111 0100	Reserved for ARGB0888 (xxxxxxxx RRRRRRRR GGGGGGGG BBBBBBBB)	
(A)BGR8bpp	0 111 0101 - 1 100 1111	Reserved	
	1 101 0000	BGR332 (BBBGGGRR)	
	1 101 0001	BGR233 (BBGGGRRR)	
	1 101 0010	BGR323 (BBBGGRRR)	
	1 101 0011	RGBA1232 (RRGGBBA)	
	1 101 0100	RGBA2222 (RRGGBBA)	
	1 101 0101	ABGR1232 (ABBGGGRR)	
	1 101 0110	ABRG2222 (AABBGRRR)	
(A)BGR16bpp	1 101 0111 - 1 110 1111	Reserved	
	1 110 0000	BGR555 (xBBBBBGG GGGRRRRR)	
	1 110 0001	BGR565 (BBBBGGGG GGGRRRRR)	
	1 110 0010	RGBA5551 (RRRRRGGG GGBBBBBA)	
	1 110 0011	RGBA4444 (RRRRGGGG BBBBAAAA)	
	1 110 0100	ABGR1555 (ABBBBBGG GGGRRRRR)	
	1 110 0101	ABGR4444 (AAAABBBBGGGG RRRR)	
(A)BGR32bpp	1 110 0110 - 1 110 1111	Reserved	
	1 111 0000	Reserved for ABGR1888 (Axxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0001	Reserved for ABGR2888 (Axxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0010	Reserved for ABGR4888 (AAAAxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0011	Reserved for ABGR8888 (AAAAAAAAA BBBBBBBB GGGGGGGG RRRRRRRR)	
	1 111 0100	Reserved for ABGR0888 (xxxxxxxx BBBBBBBB GGGGGGGG RRRRRRRR)	
D[23:16]	1 111 0101 - 1 111 1111	Reserved	
	EGTX1MPMD	(Texture1 Mapping Mode)	
	D[18:16]	U-direction	
	000 :	With Border Color outside Texture along U-direction	
	001 :	Wrap along U-direction	default
	010 :	Mirror along U-direction	
	011 :	Clamp along U-direction	
	D[21:19]	V-direction	
	000 :	With Border Color outside Texture along V-direction	
	001 :	Wrap along V-direction	default
	010 :	Mirror along V-direction	
	011 :	Clamp along V-direction	
D[15]	EGTX1SwizFlg	Texture1 Texture swizzle	
	0:	Texture 1 No Swizzle	
	1:	Texture 1 Sizzle	
D[14]	Rerved EGTX1CubMPMD	Texture 1 Cubic Mapping Mode	
	0	Mapping Mode base on EGTX0MPMD	
	1	Special Border Mapping Mode	
D[13]	Reserved for EGTX1Cubfla	Texture1 Cubic Mapping flg	
	0	Non Cubic Mapping in Texture1	
	1	Cubic Mapping in Texture1	
D[12]	Reserved for EGTX1UVPOLAR	(Set Signed or Unsigned Texture1 of YUV Format)	
	0:	Unsigned U, V format	default
	1:	Signed U, V format	
D[11:8]	EGTX1LV	(Number of Texture1's Level)	
	0000:	Single Texture1(non Mip-Map)	default
	0001 – 1000	Texture1 with Multiple Level and this number should small than or equal to max(EGTX1W, EGTX1H)	
	1001 – 1111	Reserved	
D[7:0]	Reserved		
2207h-2204h	Type : Read/Write	Default : x0 00 00 00h	
D[31:20]	Reserved for EGTX1INSY	(Level(i) of Texture Memory Locate in System Memory or not for Texture1)	
D[19:18]	EGTX1FLMAX	(Texture1 Magnified Filter Mode)	

	00:	Nearest	default
	01:	Linear	
	10:	Reserved for Anisotropic	
	11:	Reserved	
D[17:15]	EGTX1FLMIF	(Texture1 Minified Filter Mode)	
	000:	Nearest(non Mip-Map)	default
	001	Linear(non Mip-Map)	
	010	Nearest-Mip-Nearest	
	011	Nearest-Mip-Linear	
	100	Linear-Mip-Nearest	
	101	Linear-Mip-Linear	
	110	Reserved for Nearest-Mip-Anisotropic	
	111	Reserved for Linear-Mip-Anisotropic	
D[14:5]	EGTX1MLBS	(Texture1 Mip Lod Bias) 2's complement s4.5	
D[4]	Reserved		
D[3:0]	Reserved for EGTX1ANISTRPY	(Texture1 Anisotropy Filtering Ratio Limit)	

220Bh-2208h Type : Read/Write Default : xx 00 00 00h

D[31:21]	Reserved	
D[20:12]	EGTX1W	(Texture1' Width of Level0)
D[11:9]	Reserved	
D[8:0]	EGTX1H	(Texture1' Height of Level0)

220Fh-220Ch Type : Read/Write Default : xx 00 00 00h

D[31:26]	EGTX1TRSHA	(Texture1 Transparency A-channel Heigh Threshold Value)
D[25:24]	Reserved	
D[23:19]	EGTX1TRSHR	(Texture1 Transparency R-channel Heigh Threshold Value)
D[18:16]	Reserved	
D[15:10]	EGTX1TRSHG	(Texture1 Transparency G-channel Heigh Threshold Value)
D[9:8]	Reserved	
D[7:3]	EGTX1TRSHB	(Texture1 Transparency B-channel Heigh Threshold Value)
D[2:0]	Reserved	

Whenever the R,G,B values are between these threshold and EgenTX1TR is set as '1', this texel will be bypassed.

2213h-2210h Type : Read/Write Default : xx 00 00 00h

D[31:26]	EGTX1TRSLA	(Texture1 Transparency A-channel Low Threshold Value)
D[25:24]	Reserved	
D[23:19]	EGTX1TRSLR	(Texture1 Transparency R-channel Low Threshold Value)
D[18:16]	Reserved	
D[15:10]	EGTX1TRSLG	(Texture1 Transparency G-channel Low Threshold Value)
D[9:8]	Reserved	
D[7:3]	EGTX1TRSLB	(Texture1 Transparency B-channel Low Threshold Value)
D[2:0]	Reserved	

Whenever the R,G,B values are between these threshold and EgenTX1TR is set as '1', this texel will be bypassed.

2217h-2214h Type : Read/Write Default : xx 00 00 00h

D[31:26]	EGTX1CTBA (6)	(A-channel of Border Color for Texture1)
D[25:24]	Reserved	
D[23:19]	EGTX1CTBR (5)	(R-channel of Border Color for Texture1)
D[18:16]	Reserved	
D[15:10]	EGTX1CTBG (6)	(G-channel of Border Color for Texture1)
D[9:8]	Reserved	
D[7:3]	EGTX1CTBB (5)	(B-channel of Border Color for Texture1)
D[2:0]	Reserved	

221Bh-2218h Type : Read/Write Default : 00 00 00 00h

D[31:23]	Reserved	
D[22:1]	EGTX1L0BAS	(Texture1 Level 0 Base Address : Multiple of 2 Bytes) A22 ~ A1 (Base = EGTX1L0BAS x 2 bytes)
D[0]	Reserved	

221Fh-221Ch Type : Read/Write Default : 00 00 00 00h

D[31:23]	Reserved	
D[22:1]	EGTX1L1BAS	(Texture1 Level 1 Base Address : Multiple of 2 Bytes) A22 ~ A1 (Base = EGTX1L1BAS x 2 bytes)
D[0]	Reserved	

2223h-2220h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L2BAS	(Texture1 Level 2 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L2BAS x 2 bytes)
D[0]	Reserved	
2227h-2224h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L3BAS	(Texture1 Level 3 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L3BAS x 2 bytes)
D[0]	Reserved	
222Bh-2228h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L4BAS	(Texture1 Level 4 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L4BAS x 2 bytes)
D[0]	Reserved	
222Fh-222Ch	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L5BAS	(Texture1 Level 5 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L5BAS x 2 bytes)
D[0]	Reserved	
2233h-2230h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L6BAS	(Texture1 Level 6 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L6BAS x 2 bytes)
D[0]	Reserved	
2237h-2234h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L7BAS	(Texture1 Level 7 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L7BAS x 2 bytes)
D[0]	Reserved	
223Bh-2238h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	EGTX1L8BAS	(Texture1 Level 8 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L8BAS x 2 bytes)
D[0]	Reserved	
223Fh-223Ch	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	Reserved for EGTX1L9BAS	(Texture1 Level 9 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L9BAS x 2 bytes)
D[0]	Reserved	
2243h-2240h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	Reserved for EGTX1L10BAS	(Texture1 Level 10 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L10BAS x 2 bytes)
D[0]	Reserved	
2247h-2244h	Type : Read/Write	Default : 00 00 00 00h
D[31:23]	Reserved	
D[22:1]	Reserved for EGTX1L11BAS	(Texture1 Level 11 Base Address : Multiple of 2 Bytes)
	D[22:1]	A22 ~ A1 (Base = EGTX1L11BAS x 2 bytes)
D[0]	Reserved	
224Bh-2248h	Type : Read/Write	Default : x0 00 x0 00h
D[31:28]	Reserved	
D[27:16]	EGTX1L1PITCH	(Texture1 Level 1 Pitch)
	D[27:24]	Exponential of Pitch

D[15:12] D[11:0]	D[23:16] Reserved EGTX1L0PITCH D[11:8] D[7:0]	Mantissa of Pitch the value of pitch in byte equals to $D[23:16]*2^D[27:24]$ (Texture1 Level 0 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
224Fh-224Ch D[31:28] D[27:16]	Type : Read/Write Reserved EGTX1L3PITCH D[27:24] D[23:16]	Default : x0 00 x0 00h (Texture1 Level 3 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12] D[11:0]	Reserved EGTX1L2PITCH D[11:8] D[7:0]	(Texture1 Level 2 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
2253h-2250h D[31:28] D[27:16]	Type : Read/Write Reserved EGTX1L5PITCH D[27:24] D[23:16]	Default : x0 00 x0 00h (Texture1 Level 5 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12] D[11:0]	Reserved EGTX1L4PITCH D[11:8] D[7:0]	(Texture1 Level 4 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
2257h-2254h D[31:28] D[27:16]	Type : Read/Write Reserved EGTX1L7PITCH D[27:24] D[23:16]	Default : x0 00 x0 00h (Texture1 Level 7 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12] D[11:0]	Reserved EGTX1L6PITCH D[11:8] D[7:0]	(Texture1 Level 6 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
225Bh-2258h D[31:28] D[27:16]	Type : Read/Write Reserved Reserved for EGTX1L9PITCH D[27:24] D[23:16]	Default : x0 00 x0 00h (Texture1 Level 9 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[23:16]*2^D[27:24]$
D[15:12] D[11:0]	Reserved EGTX1L8PITCH D[11:8] D[7:0]	(Texture1 Level 8 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
225Fh-225Ch D[31:12] D[11:0]	Type : Read/Write Reserved EGTX1L10PITCH D[11:8] D[7:0]	Default : x0 00 x0 00h (Texture1 Level 10 Pitch) Exponential of Pitch Mantissa of Pitch the value of pitch in byte equals to $D[7:0]*2^D[11:8]$
2333h-2330h D[31:0]	Type : Read/Write EGTXBLDC0fact	Default : 00 00 00 00h (a value set in the API via D3DRENDERSTATE_TEXTUREFACTOR)

D[31:24] Alpha Channel (s.7)
 EGTXB LDA0fact
 D[23:18] Red Channel (s.5)
 EGTXB LDR0fact
 D[17:16] Reserved
 D[15:9] Green Channel (s.6)
 EGTXB L DG0fact
 D[8] Reserved
 D[7:2] Blue Channel (s.5)
 EGTXB L DB0fact
 D[1:0] Reserved

2337h-2334h **Type : Read/Write** **Default : 00 00 00 00h**
 D[31:0] EGTXB L DC1fact (a value set in the API via D3DRENDERSTATE_TEXTUREFACTOR)
 D[31:24] Alpha Channel (s.7)
 EGTXB LDA1fact
 D[23:18] Red Channel (s.5)
 EGTXB L DR1fact
 D[17:16] Reserved
 D[15:9] Green Channel (s.6)
 EGTXB L DG1fact
 D[8] Reserved
 D[7:2] Blue Channel (s.5)
 EGTXB L DB1fact
 D[1:0] Reserved

2353h-2350h **Type : Read/Write** **Default : xx xx xx xxh**
 D[31:28] EGTXCBS0R1ARGIMod (Control 1st Input Modify to Stage0 Color Blending Unit)
 D[31] Bias
 0: X default
 1: X - 0.5
 D[30] Scale
 0: X default
 1: 2X
 D[29] Negative
 0: X default
 1: Negative(X)
 D[28] Complement
 0: X default
 1: 1 - X
 D[27:24] EGTXCBS0R2ARGIMod (Control 2nd Input Modify to Stage0 Color Blending Unit)
 D[27] Bias
 0: X default
 1: X - 0.5
 D[26] Scale
 0: X default
 1: 2X
 D[25] Negative
 0: X default
 1: Negative(X)
 D[24] Complement
 0: X default
 1: 1 - X
 D[23:20] EGTXCBS0R3ARGIMod (Control 3rd Input Modify to Stage0 Color Blending Unit)
 D[23] Bias
 0: X default
 1: X - 0.5
 D[22] Scale
 0: X default
 1: 2X
 D[21] Negative
 0: X default
 1: Negative(X)
 D[20] Complement
 0: X default

D[19:16]	1:	EGTXCBS0R4ARGIMod	1 - X (Control 4th Input Modify to Stage0 Color Blending Unit)	
	D[19]		Bias	
	0:		X	Default
	1:		X - 0.5	
	D[18]		Scale	
	0:		X	Default
	1:		2X	
	D[17]		Negative	
	0:		X	default
	1:		Negative(X)	
D[15:13]	D[16]		Complement	
	0:		X	default
	1:		1 - X	
	EGTXCBS0C0WMsk		(Select Current 0 Write Mask of Stage0 Color Blending Unit)	
	0 00 :		No Output	default
	0 01 :		from the output of operation A	
	0 10 :		from the output of operation B	
	0 11 :		from the output of operation C	
	1 00 :		Output operation A to t0	
	1 01:		Output operation A to t1	
D[12:8]	1 10:		Reserved for Output operation A to t2	
	1 11:		Reserved for Output operation A to t3	
	EGTXCBS0C0OMod		(Select Current 0 Output Modify of Stage0 Color Blending Unit)	
	D[12]		Bias	
	0:		X	Default
	1:		X - 0.5	
	D[11:9]		Scale	
	000		X	Default
	001		2X	
	010		4X	
D[7:5]	011		8X	
	101		D2	
	110		D4	
	111		D8	
	D[8]		Sat	
	0:		X	
	1:		Sat (X)	default
	EGTXCBS0C1WMsk		(Select Current 1 Write Mask of Stage0 Color Blending Unit)	
	0 00 :		No Output	default
	0 01 :		from the output of operation A	
D[4:0]	0 10 :		from the output of operation B	
	0 11 :		from the output of operation C	
	1 00 :		Output operation C to t0	
	1 01:		Output operation C to t1	
	1 10:		Reserved for Output operation C to t2	
	1 11:		Reserved for Output operation C to t3	
	EGTXCBS0C1OMod		(Select Current 1 Output Modify of Stage0 Color Blending Unit)	
	D[4]		Bias	
	0:		X	Default
	1:		X - 0.5	
2357h-2354h	D[3:1]		Scale	
	000		X	Default
	001		2X	
	010		4X	
	011		8X	
	101		D2	
	110		D4	
	111		D8	
	D[0]		Sat	
	0:		X	
1:		Sat (X)	default	
2357h-2354h	Type : Read/Write	Default :	xx xx xx xxh	
D[31]	Reserved			
D[30:25]	EGTXCBS0R1ARG	(Control 1st Input to Stage0 Color Blending Unit)		
D[30]		replicate Alpha to Color component		
0:		take the original component		

	1:	take the Alpha component	
	D[29:25]	select which data as ARG1	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1(Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXBLD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXBLD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXBLD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXBLD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXBLD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXBLD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXBLD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXBLD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[24:22]</i>	EGTXCBS0ROPC	(Select Operation C of Stage0 Color Blending Unit)	
	00:	NOP	
	001:	CND_A => (Acur0 >= 0.5) ? (ARG3*ARG4) : (ARG1*ARG2)	
	010:	CMP => (Arg1 >= 0) ? Arg3 : Arg4	
	011:	Add => ARG1 * ARG2 + ARG3 * ARG4	
	100:	Sub => ARG1 * ARG2 - ARG3 * ARG4	
	101	CND_B => (Arg1 >= 0.5) ? Arg3 : Arg4	
	110:	Add_sat => ARG1 * ARG2 + _Sat(ARG3 * ARG4)	
	111:	Sub_sat => ARG1 * ARG2 - _Sat(ARG3 * ARG4)	
<i>D[21:16]</i>	EGTXCBS0R2ARG	(Control 2nd Input to Stage0 Color Blending Unit)	
	D[21]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[20:16]	select which data as ARG2	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1(Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXBLD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXBLD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXBLD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXBLD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXBLD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXBLD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXBLD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXBLD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[15:14]</i>	EGTXCBS0ROPB	(Select Operation B of Stage0 Color Blending Unit)	
	00:	DP3 => Arg3 dp3 Arg4	
	01:	DP4 => Arg3 dp4 Arg4	
	10:	Mul => ARG3 * ARG4	
	11:	Reserved	
<i>D[13:8]</i>	EGTXCBS0R3ARG	(Control 3rd Input to Stage0 Color Blending Unit)	
	D[13]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[12:8]	select which data as ARG3	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	

	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1(Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXB LD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXB LD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXB LD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXB LD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXB LD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXB LD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXB LD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXB LD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[7:6]</i>	EGTXCBS0ROPA	(Select Operation A of Stage0 Color Blending Unit)	
	00:	DP3 => Arg1 dp3 Arg2	
	01:	DP4 => Arg1 dp4 Arg2	
	10:	Mul => Arg1 * Arg2	
	11:	Resserved	
<i>D[5:0]</i>	EGTXCBS0R4ARG	(Control 4th Input to Stage0 Color Blending Unit)	
	D[5]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[4:0]	select which data as ARG4	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1(Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXB LD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXB LD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXB LD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXB LD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXB LD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXB LD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXB LD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXB LD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
235Bh-2358h	Type : Read/Write	Default : xx xx xx xxh	
<i>D[31:28]</i>	EGTXCBS1R1ARGIMod	(Control 1st Input Modify to Stage1 Color Blending Unit)	
	D[31]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[30]	Scale	
	0:	X	default
	1:	2X	
	D[29]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[28]	Complement	
	0:	X	default
	1:	1 - X	
<i>D[27:24]</i>	EGTXCBS1R2ARGIMod	(Control 2nd Input Modify to Stage1 Color Blending Unit)	
	D[27]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[26]	Scale	
	0:	X	default
	1:	2X	
	D[25]	Negative	
	0:	X	

	1:	Negative(X)	
	D[24]	Complement	
	0:	X	default
D[23:20]	1:	1 - X	
	EGTXCBS1R3ARGIMod	(Control 3rd Input Modify to Stage1 Color Blending Unit)	
	D[23]	Bias	
	0:	X	default
	1:	X - 0.5	
	D[22]	Scale	
	0:	X	default
	1:	2X	
	D[21]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[20]	Complement	
	0:	X	default
	1:	1 - X	
D[19:16]	EGTXCBS1R4ARGIMod	(Control 4th Input Modify to Stage1 Color Blending Unit)	
	D[19]	Bias	
	0:	X	Default
	1:	X - 0.5	
	D[18]	Scale	
	0:	X	Default
	1:	2X	
	D[17]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[16]	Complement	
	0:	X	default
	1:	1 - X	
D[15:13]	EGTXCBS1C0WMsk	(Select Current 0 Write Mask of Stage1 Color Blending Unit)	
	0 00 :	No Output	default
	0 01 :	from the output of operation A	
	0 10 :	from the output of operation B	
	0 11 :	from the output of operation C	
	1 00 :	Output operation A to t0	
	1 01:	Output operation A to t1	
	1 10:	Reserved for Output operation A to t2	
	1 11:	Reserved for Output operation A to t3	
D[12:8]	EGTXCBS1C0OMod	(Select Current 0 Output Modify of Stage1 Color Blending Unit)	
	D[12]	Bias	
	0:	X	Default
	1:	X - 0.5	
	D[11:9]	Scale	
	000	X	Default
	001	2X	
	010	4X	
	011	8X	
	101	D2	
	110	D4	
	111	D8	
	D[8]	Sat	
	0:	X	
	1:	Sat (X)	default
D[7:5]	EGTXCBS1C1WMsk	(Select Current 1 Write Mask of Stage1 Color Blending Unit)	
	0 00 :	No Output	default
	0 01 :	from the output of operation A	
	0 10 :	from the output of operation B	
	0 11 :	from the output of operation C	
	1 00 :	Output operation C to t0	
	1 01:	Output operation C to t1	
	1 10:	Reserved for Output operation C to t2	
	1 11:	Reserved for Output operation C to t3	
D[4:0]	EGTXCBS1C1OMod	(Select Current 1 Output Modify of Stage1 Color Blending Unit)	
	D[4]	Bias	
	0:	X	Default
	1:	X - 0.5	
	D[3:1]	Scale	
	000	X	Default

001	2X	
010	4X	
011	8X	
101	D2	
110	D4	
111	D8	
D[0]	Sat	
0:	X	
1:	Sat (X)	default

235Fh-235Ch	Type : Read/Write	Default : xx xx xx xxh	
<i>D[31]</i>	<i>Reserved</i>		
<i>D[30:25]</i>	EGTXCBS1R1ARG	(Control 1st Input to Stage1 Color Blending Unit)	
	D[30]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[29:25]	select which data as ARG1	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1 (Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXBLD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXBLD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXBLD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXBLD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXBLD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXBLD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXBLD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXBLD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[24:22]</i>	EGTXCBS1ROPC	(Select Operation C of Stage1 Color Blending Unit)	
	000:	NOP	
	001:	CND_A => (Acur0 >= 0.5) ? (ARG3*ARG4) : (ARG1*ARG2)	
	010:	CMP => (Arg1 >= 0) ? Arg3 : Arg4	
	011:	Add => ARG1 * ARG2 + ARG3 * ARG4	
	100:	Sub => ARG1 * ARG2 - ARG3 * ARG4	
	101	CND_B => (Arg1 >= 0.5) ? Arg3 : Arg4	
	110:	Add_sat => ARG1 * ARG2 + _Sat(ARG3 * ARG4)	
	111:	Sub_sat => ARG1 * ARG2 - _Sat(ARG3 * ARG4)	
<i>D[21:16]</i>	EGTXCBS1R2ARG	(Control 2nd Input to Stage1 Color Blending Unit)	
	D[21]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[20:16]	select which data as ARG2	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1 (Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXBLD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXBLD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXBLD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXBLD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXBLD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXBLD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXBLD6CFACT (Cfact6)	

	1 1001:	Reserved for Color of EGTXB LD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[15:14]</i>	EGTXCBS1ROPB	(Select Operation B of Stage1 Color Blending Unit)	
	00:	DP3 => Arg3 dp3 Arg4	
	01:	DP4 => Arg3 dp4 Arg4	
	10:	Mul => Arg3 * Arg4	
	11:	Reserved	
<i>D[13:8]</i>	EGTXCBS1R3ARG	(Control 3rd Input to Stage1 Color Blending Unit)	
	D[13]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[12:8]	select which data as ARG3	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1 (Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXB LD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXB LD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXB LD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXB LD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXB LD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXB LD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXB LD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXB LD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
<i>D[7:6]</i>	EGTXCBS1ROPA	(Select Operation A of Stage1 Color Blending Unit)	
	00:	DP3 => Arg1 dp3 Arg2	
	01:	DP4 => Arg1 dp4 Arg2	
	10:	Mul => Arg1 * Arg2	
	11:	Reserved	
<i>D[5:0]</i>	EGTXCBS1R4ARG	(Control 4th Input to Stage1 Color Blending Unit)	
	D[5]	replicate Alpha to Color component	
	0:	take the original component	
	1:	take the Alpha component	
	D[4:0]	select which data as ARG4	
	0 0000:	0	
	0 0001:	Current 1 (Ccur1)	Cdif
	0 0010:	Reserved	
	0 0011:	Color of Gouraud Shading (Cdif)	
	0 0100:	Specular Color (Cspec)	
	0 0101:	Ccurrent 0 (Ccur0)	Cdif
	0 0110:	Color of Texture0 (Ctex0)	
	0 0111:	Color of Texture1 (Ctex1)	
	0 1000:	Reserved for Color of Texture2 (Ctex2)	
	0 1001:	Reserved for Color of Texture3 (Ctex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Color of EGTXB LD0CFACT (Cfact0)	
	1 0011:	Reserved for Color of EGTXB LD1CFACT (Cfact1)	
	1 0100:	Reserved for Color of EGTXB LD2CFACT (Cfact2)	
	1 0101:	Reserved for Color of EGTXB LD3CFACT (Cfact3)	
	1 0110:	Reserved for Color of EGTXB LD4CFACT (Cfact4)	
	1 0111:	Reserved for Color of EGTXB LD5CFACT (Cfact5)	
	1 1000:	Reserved for Color of EGTXB LD6CFACT (Cfact6)	
	1 1001:	Reserved for Color of EGTXB LD7CFACT (Cfact7)	
	1 1010 – 1 1111	Reserved	
2393h-2390h	Type : Read/Write	Default : xx xx xx xxh	
<i>D[31:28]</i>	EGTXABS0R1ARGMod	(Control 1st Input Modify to Stage0 Alpha Blending Unit)	
	D[31]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[30]	Scale	
	0:	X	default

	1:	2X	
	D[29]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[28]	Complement	
	0:	X	default
	1:	1 - X	
D[27:24]	EGTXABS0R2ARGIMod	(Control 2nd Input Modify to Stage0 Alpha Blending Unit)	
	D[27]	Bias	
	0:	X	default
	1:	X - 0.5	
	D[26]	Scale	
	0:	X	default
	1:	2X	
	D[25]	Negative	
	0:	X	
	1:	Negative(X)	
	D[24]	Complement	
	0:	X	default
	1:	1 - X	
D[23:20]	EGTXABS0R3ARGIMod	(Control 3rd Input Modify to Stage0 Alpha Blending Unit)	
	D[23]	Bias	
	0:	X	default
	1:	X - 0.5	
	D[22]	Scale	
	0:	X	default
	1:	2X	
	D[21]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[20]	Complement	
	0:	X	default
	1:	1 - X	
D[19:16]	EGTXABS0R4ARGIMod	(Control 4th Input Modify to Stage0 Alpha Blending Unit)	
	D[19]	Bias	
	0:	X	Default
	1:	X - 0.5	
	D[18]	Scale	
	0:	X	Default
	1:	2X	
	D[17]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[16]	Complement	
	0:	X	default
	1:	1 - X	
D[15:13]	EGTXABS0C0WMsk	(Select Current 0 Write Mask of Stage0 Alpha Blending Unit)	
	0 00 :	No Output	default
	0 01 :	from the output of operation A	
	0 10 :	from the output of operation B	
	0 11 :	from the output of operation C	
	1 00 :	Output operation A to t0	
	1 01:	Output operation A to t1	
	1 10:	Reserved for Output operation C to t2	
	1 11:	Reserved for Output operation C to t3	
D[12:8]	EGTXABS0C0OMod	(Select Current 0 Output Modify of Stage0 Alpha Blending Unit)	
	D[12]	Bias	
	0:	X	Default
	1:	X - 0.5	
	D[11:9]	Scale	
	000	X	Default
	001	2X	
	010	4X	
	011	8X	
	101	D2	
	110	D4	
	111	D8	
	D[8]	Sat	
	0:	X	
	1:	Sat (X)	default

<i>D</i> [7:5]	EGTXABS0C1Wmsk 0 00 : 0 01 : 0 10 : 0 11 : 1 00 : 1 01: 1 10: 1 11:	(Select Current 1 Write Mask of Stage0 Alpha Blending Unit) No Output from the output of operation A from the output of operation B from the output of operation C Output operation C to t0 Output operation C to t1 Reserved for Output operation C to t2 Reserved for Output operation C to t3	default
<i>D</i> [4:0]	EGTXABS0C1OMod D[4] 0: 1: D[3:1] 000 001 010 011 101 110 111 D[0] 0: 1:	(Select Current 1 Output Modify of Stage0 Alpha Blending Unit) Bias X X – 0.5 Scale X 2X 4X 8X D2 D4 D8 Sat X Sat (X)	Default Default default
2397h-2394h Type : Read/Write Default : xx xx xx xxh			
<i>D</i> [31] <i>D</i> [30:25]	<i>Reserved</i> EGTXABS0R1ARG D[30] 0: 1: D[29:25] 0 0000: 0 0001: 0 0010: 0 0011: 0 0100: 0 0101: 0 0110: 0 0111: 0 1000: 0 1001: 0 1010 – 1 0001: 1 0010: 1 0011: 1 0100: 1 0101: 1 0110: 1 0111: 1 1000: 1 1001: 1 1010 – 1 1111	(Control 1st Input to Stage0 Alpha Blending Unit) replicate Blue to Alpha component take the original component take the Blue component select which data as ARG1 0 Current 1 (Acur1) Reserved Alpha of Gouraud Shading (Adif) Specular Alpha (Aspec) Ccurrent 0 (Acur0) Alpha of Texture0 (Atex0) Alpha of Texture1(Atex1) Reserved for Alpha of Texture2 (Atex2) Reserved for Alpha of Texture3 (Atex3) Reserved Alpha of EGTXBLD0CFAC (Afact0) Reserved for Alpha of EGTXBLD1CFAC (Afact1) Reserved for Alpha of EGTXBLD2CFAC (Afact2) Reserved for Alpha of EGTXBLD3CFAC (Afact3) Reserved for Alpha of EGTXBLD4CFAC (Afact4) Reserved for Alpha of EGTXBLD5CFAC (Afact5) Reserved for Alpha of EGTXBLD6CFAC (Afact6) Reserved for Alpha of EGTXBLD7CFAC (Afact7) Reserved	Adif Adif
<i>D</i> [24:22]	EGTXABS0ROPC 000: 001: 010: 011: 100: 101 110: 111:	(Select Operation C of Stage0 Alpha Blending Unit) NOP CND_A => (Acur0 >= 0.5) ? (ARG3*ARG4) : (ARG1*ARG2) CMP => (Arg1 >= 0) ? Arg3 : Arg4 Add => ARG1 * ARG2 + ARG3 * ARG4 Sub => ARG1 * ARG2 - ARG3 * ARG4 CND_B => (Arg1.a >= 0.5) ? Arg3 : Arg4 Add_sat => ARG1 * ARG2 + _Sat(ARG3 * ARG4) Sub_sat => ARG1 * ARG2 - _Sat(ARG3 * ARG4)	
<i>D</i> [21:16]	EGTXABS0R2ARG D[21] 0: 1: D[20:16] 0 0000: 0 0001:	(Control 2nd Input to Stage0 Alpha Blending Unit) replicate Blue to Alpha component take the original component take the Blue component select which data as ARG2 0 Current 1 (Acur1)	Adif

	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	
<i>D[15:14]</i>	EGTXABS0ROPB	(Select Operation B of Stage0 Alpha Blending Unit)	
	00:	DP3 => Arg3 dp3 Arg4	
	01:	DP4 => Arg3 dp4 Arg4	
	10:	Mul => Arg3 * Arg4	
	11:	Reserved	
<i>D[13:8]</i>	EGTXABS0R3ARG	(Control 3rd Input to Stage0 Alpha Blending Unit)	
	D[13]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[12:8]	select which data as ARG3	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	
<i>D[7:6]</i>	EGTXABS0ROPA	(Select Operation A of Stage0 Alpha Blending Unit)	
	00:	DP3 => Arg1 dp3 Arg2	
	01:	DP4 => Arg1 dp4 Arg2	
	10:	Mul => Arg1 * Arg2	
	11:	Reserved	
<i>D[5:0]</i>	EGTXABS0R4ARG	(Control 4th Input to Stage0 Alpha Blending Unit)	
	D[5]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[4:0]	select which data as ARG4	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	

1 0100: Reserved for Alpha of EGTXBLD2CFACT (Afact2)
1 0101: Reserved for Alpha of EGTXBLD3CFACT (Afact3)
1 0110: Reserved for Alpha of EGTXBLD4CFACT (Afact4)
1 0111: Reserved for Alpha of EGTXBLD5CFACT (Afact5)
1 1000: Reserved for Alpha of EGTXBLD6CFACT (Afact6)
1 1001: Reserved for Alpha of EGTXBLD7CFACT (Afact7)
1 1010 – 1 1111 Reserved

239Bh-2398h	Type : Read/Write	Default : xx xx xx xxh	
<i>D[31:28]</i>	EGTXABS1R1ARGIMod	(Control 1st Input Modify to Stage1 Alpha Blending Unit)	
	D[31]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[30]	Scale	
	0:	X	default
	1:	2X	
	D[29]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[28]	Complement	
	0:	X	default
	1:	1 - X	
<i>D[27:24]</i>	EGTXABS1R2ARGIMod	(Control 2nd Input Modify to Stage1 Alpha Blending Unit)	
	D[27]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[26]	Scale	
	0:	X	default
	1:	2X	
	D[25]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[24]	Complement	
	0:	X	default
	1:	1 - X	
<i>D[23:20]</i>	EGTXABS1R3ARGIMod	(Control 3rd Input Modify to Stage1 Alpha Blending Unit)	
	D[23]	Bias	
	0:	X	default
	1:	X – 0.5	
	D[22]	Scale	
	0:	X	default
	1:	2X	
	D[21]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[20]	Complement	
	0:	X	default
	1:	1 - X	
<i>D[19:16]</i>	EGTXABS1R4ARGIMod	(Control 4th Input Modify to Stage1 Alpha Blending Unit)	
	D[19]	Bias	
	0:	X	Default
	1:	X – 0.5	
	D[18]	Scale	
	0:	X	Default
	1:	2X	
	D[17]	Negative	
	0:	X	default
	1:	Negative(X)	
	D[16]	Complement	
	0:	X	default
	1:	1 - X	
<i>D[15:13]</i>	EGTXABS1C0WMsk	(Select Current 0 Write Mask of Stage1 Alpha Blending Unit)	
	0 00 :	No Output	default
	0 01 :	from the output of operation A	
	0 10 :	from the output of operation B	
	0 11 :	from the output of operation C	
	1 00 :	Output operation A to t0	
	1 01:	Output operation A to t1	
	1 10:	Reserved for Output operation C to t2	
	1 11:	Reserved for Output operation C to t3	

<i>D[12:8]</i>	EGTXABS1C0Mod	(Select Current 0 Output Modify of Stage1 Alpha Blending Unit)	
	D[12]	Bias	
	0:	X	Default
	1:	X – 0.5	
	D[11:9]	Scale	
	000	X	Default
	001	2X	
	010	4X	
	011	8X	
	101	D2	
	110	D4	
	111	D8	
	D[8]	Sat	
	0:	X	
	1:	Sat (X)	default
<i>D[7:5]</i>	EGTXABS1C1Wmsk	(Select Current 1 Write Mask of Stage1 Alpha Blending Unit)	
	0 00 :	No Output	default
	0 01 :	from the output of operation A	
	0 10 :	from the output of operation B	
	0 11 :	from the output of operation C	
	1 00 :	Output operation C to t0	
	1 01:	Output operation C to t1	
	1 10:	Reserved for Output operation C to t2	
	1 11:	Reserved for Output operation C to t3	
<i>D[4:0]</i>	EGTXABS1C1OMod	(Select Current 1 Output Modify of Stage1 Alpha Blending Unit)	
	D[4]	Bias	
	0:	X	Default
	1:	X – 0.5	
	D[3:1]	Scale	
	000	X	Default
	001	2X	
	010	4X	
	011	8X	
	101	D2	
	110	D4	
	111	D8	
	D[0]	Sat	
	0:	X	
	1:	Sat (X)	default
239Fh-239Ch	Type : Read/Write	Default : xx xx xx xxh	
<i>D[31]</i>	<i>Reserved</i>		
<i>D[30:25]</i>	EGTXABS1R1ARG	(Control 1st Input to Stage1 Alpha Blending Unit)	
	D[30]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[29:25]	select which data as ARG1	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	

D[24:22]	EGTXABS1ROPC	(Select Operation C of Stage1 Alpha Blending Unit)	
	000:	NOP	
	001:	CND_A => (Acur0 >= 0.5) ? (ARG3*ARG4) : (ARG1*ARG2)	
	010:	CMP => (Arg1 >= 0) ? Arg3 : Arg4	
	011:	Add => ARG1 * ARG2 + ARG3 * ARG4	
	100:	Sub => ARG1 * ARG2 - ARG3 * ARG4	
	101	CND_B => (Arg1.a >= 0.5) ? Arg3 : Arg4	
	110:	Add_sat => ARG1 * ARG2 + _Sat(ARG3 * ARG4)	
	111:	Sub_sat => ARG1 * ARG2 - _Sat(ARG3 * ARG4)	
D[21:16]	EGTXABS1R2ARG	(Control 2nd Input to Stage1 Alpha Blending Unit)	
	D[21]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[20:16]	select which data as ARG2	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	
D[15:14]	EGTXABS1ROPB	(Select Operation B of Stage1 Alpha Blending Unit)	
	00:	DP3 => Arg3 dp3 Arg4	
	01:	DP4 => Arg3 dp4 Arg4	
	10:	Mul => Arg3 * Arg4	
	11:	Reserved	
D[13:8]	EGTXABS1R3ARG	(Control 3rd Input to Stage1 Alpha Blending Unit)	
	D[13]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[12:8]	select which data as ARG3	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	
D[7:6]	EGTXABS1ROPA	(Select Operation A of Stage1 Alpha Blending Unit)	
	00:	DP3 => Arg1 dp3 Arg2	
	01:	DP4 => Arg1 dp4 Arg2	
	10:	Mul => Arg1 * Arg2	
	11:	Reserved	

<i>D[5:0]</i>	EGTXABS1R4ARG	(Control 4th Input to Stage1 Alpha Blending Unit)	
	D[5]	replicate Blue to Alpha component	
	0:	take the original component	
	1:	take the Blue component	
	D[4:0]	select which data as ARG4	
	0 0000:	0	
	0 0001:	Current 1 (Acur1)	Adif
	0 0010:	Reserved	
	0 0011:	Alpha of Gouraud Shading (Adif)	
	0 0100:	Specular Alpha (Aspec)	
	0 0101:	Ccurrent 0 (Acur0)	Adif
	0 0110:	Alpha of Texture0 (Atex0)	
	0 0111:	Alpha of Texture1(Atex1)	
	0 1000:	Reserved for Alpha of Texture2 (Atex2)	
	0 1001:	Reserved for Alpha of Texture3 (Atex3)	
	0 1010 – 1 0001:	Reserved	
	1 0010:	Alpha of EGTXBLD0CFACT (Afact0)	
	1 0011:	Reserved for Alpha of EGTXBLD1CFACT (Afact1)	
	1 0100:	Reserved for Alpha of EGTXBLD2CFACT (Afact2)	
	1 0101:	Reserved for Alpha of EGTXBLD3CFACT (Afact3)	
	1 0110:	Reserved for Alpha of EGTXBLD4CFACT (Afact4)	
	1 0111:	Reserved for Alpha of EGTXBLD5CFACT (Afact5)	
	1 1000:	Reserved for Alpha of EGTXBLD6CFACT (Afact6)	
	1 1001:	Reserved for Alpha of EGTXBLD7CFACT (Afact7)	
	1 1010 – 1 1111	Reserved	

23DFh-23A0h Type : Read/Write Default : xxh

D[31:0] Reserved
D[31:0] Reserved

23E3h-23E0h Type : Read/Write Default : xxh

This is a dummy address. The data stored in this address is no meaning

D[31:2] Reserved
D[1:0] **EGEND** **(End of Primitive list)**
00 : **Wait Front Engine Idle & wait Back Engine Idle**
01 : **No wait Front Engine Idle & wait Back Engine Idle**

23E7h-23E4h Type : Read/Write Default : xxh

This is a dummy address. The data stored in this address is no meaning

D[31:0] EGPASEND (End of Primitive list for Parsor)

