Address	Name	Access	OCS	ECS	AGA	SAGA	Description
DFF000	BLTDDAT	ER	*	*	*	*	Blitter dest. early read (dummy address)
DFF002	<u>DMACONR</u>	R	*	*	*	*	Dma control (and blitter status) read
DFF004	<u>VPOSR</u>	R	*	*	*	*	Read vertical most sig. bits (and frame flop)
DFF006	<u>VHPOSR</u>	R	*	*	*	*	Read vert and horiz position of beam
DFF008	<u>DSKDATR</u>	ER	*	*	*	*	Disk data early read (dummy address)
DFF00A	JOY0DAT	R	*	*	*	*	Joystick-mouse 0 data (vert, horiz)
DFF00C	JOY1DAT	R	*	*	*	*	Joystick-mouse 1 data (vert, horiz)
DFF00E	CLXDAT	R	*	*	*	*	Collision data reg. (read and clear)
DFF010	ADKCONR	R	*	*	*	*	Audio,disk control register read
DFF012	POT0DAT	R	*	*	*	*	Pot counter data left pair (vert, horiz)
DFF014	POT1DAT	R	*	*	*	*	Pot counter data right pair (vert, horiz)
DFF016	POTINP	R	*	*	*	*	Pot pin data read
DFF018	<u>SERDATR</u>	R	*	*	*	*	Serial port data and status read
DFF01A	<u>DSKBYTR</u>	R	*	*	*	*	Disk data byte and status read
DFF01C	INTENAR	R	*	*	*	*	Interrupt enable bits read
DFF01E	<u>INTREQR</u>	R	*	*	*	*	Interrupt request bits read
DFF020	<u>DSKPTH</u>	W	*	*	*	*	Disk pointer (high 5 bits, was 3 bits)
DFF022	<u>DSKPTL</u>	W	*	*	*	*	Disk pointer (low 15 bits)
DFF024	<u>DSKLEN</u>	W	*	*	*	*	Disk length
DFF026	<u>DSKDAT</u>	W	*	*	*	*	Disk DMA data write
DFF028	<u>REFPTR</u>	W	*	*	*	*	Refresh pointer
DFF02A	VPOSW	W	*	*	*	*	Write vert most sig. bits (and frame flop)
DFF02C	<u>VHPOSW</u>	W	*	*	*	*	Write vert and horiz pos of beam
DFF02E	COPCON	W	*	*	*	*	Coprocessor control
DFF030	<u>SERDAT</u>	W	*	*	*	*	Serial port data and stop bits write
DFF032	<u>SERPER</u>	W	*	*	*	*	Serial port period and control
DFF034	<u>POTGO</u>	W	*	*	*	*	Pot count start,pot pin drive enable data
DFF036	<u>JOYTEST</u>	W	*	*	*	*	Write to all 4 joystick-mouse counters at once
DFF038	<u>STREQU</u>	S	*	*	*	*	Strobe for horiz sync with VB and EQU
DFF03A	STRVBL	S	*	*	*	*	Strobe for horiz sync with VB (vert blank)
DFF03C	<u>STRHOR</u>	S	*	*	*	*	Strobe for horiz sync

DFF03E	STRLONG	S	*	*	*	*	Strobe for identification of long horiz line
DFF040	BLTCON0	W	*	*	*	*	Blitter control register 0
DFF042	BLTCON1	W	*	*	*	*	Blitter control register 1
DFF044	<u>BLTAFWM</u>	W	*	*	*	*	Blitter first word mask for source A
DFF046	BLTALWM	W	*	*	*	*	Blitter last word mask for source A
DFF048	<u>BLTCPTH</u>	W	*	*	*	*	Blitter pointer to source C (high 5 bits, was 3 bits)
DFF04A	BLTCPTL	W	*	*	*	*	Blitter pointer to source C (low 15 bits)
DFF04C	<u>BLTBPTH</u>	W	*	*	*	*	Blitter pointer to source B (high 5 bits, was 3 bits)
DFF04E	BLTBPTL	W	*	*	*	*	Blitter pointer to source B (low 15 bits)
DFF050	<u>BLTAPTH</u>	W	*	*	*	*	Blitter pointer to source A (high 5 bits, was 3 bits)
DFF052	BLTAPTL	W	*	*	*	*	Blitter pointer to source A (low 15 bits)
DFF054	<u>BLTDPTH</u>	W	*	*	*	*	Blitter pointer to dest D (high 5 bits, was 3 bits)
DFF056	BLTDPTL	W	*	*	*	*	Blitter pointer to dest D (low 15 bits)
DFF058	BLTSIZE	W	*	*	*	*	Blitter start and size (win/width,height)
DFF05A	BLTCON0L	W		*	*	*	Blitter control 0, lower 8 bits (minterms)
DFF05C	BLTSIZV	W		*	*	*	Blitter V size (for 15 bit vertical size)
DFF05E	BLTSIZH	W		*	*	*	Blitter H size and start (for 11 bit H size)
DFF060	BLTCMOD	W	*	*	*	*	Blitter modulo for source C
DFF062	BLTBMOD	W	*	*	*	*	Blitter modulo for source B
DFF064	BLTAMOD	W	*	*	*	*	Blitter modulo for source A
DFF066	BLTDMOD	W	*	*	*	*	Blitter modulo for dest D
DFF070	<u>BLTCDAT</u>	W	*	*	*	*	Blitter source C data register
DFF072	BLTBDAT	W	*	*	*	*	Blitter source B data register
DFF074	BLTADAT	W	*	*	*	*	Blitter source A data register
DFF078	SPRHDAT	W		*	*	*	Ext. logic UHRES sprite pointer and data identifier
DFF07A	<u>BPLHDAT</u>	W		*	*	*	Ext. logic UHRES bit plane identifier
DFF07C	DENISEID	R		*	*	*	Chip revision level for Denise/Lisa (video out chip)
DFF07E	<u>DSKSYNC</u>	W	*	*	*	*	Disk sync pattern reg for disk read
DFF080	COP1LCH	W	*	*	*	*	Coprocessor 1st location (high 5 bits,was 3 bits)

DFF082	COP1LCL	W	*	*	*	*	Coprocessor 1st location (low 15 bits)
DFF084	COP2LCH	W	*	*	*	*	Coprocessor 2nd location(high 5 bits,was 3 bits)
DFF086	COP2LCL	W	*	*	*	*	Coprocessor 2nd location (low 15 bits)
DFF088	COPJMP1	S	*	*	*	*	Coprocessor restart at 1st location
DFF08A	COPJMP2	S	*	*	*	*	Coprocessor restart at 2nd location
DFF08C	<u>COPINS</u>	S	*	*	*	*	Coprocessor inst fetch identify
DFF08E	DIWSTRT	W	*	*	*	*	Display window start (upper left vert,horiz pos)
DFF090	DIWSTOP	W	*	*	*	*	Display window stop (lower right vert,horiz pos)
DFF092	DDFSTRT	W	*	*	*	*	Display bit plane data fetch start,horiz pos
DFF094	<u>DDFSTOP</u>	W	*	*	*	*	Display bit plane data fetch stop,horiz pos
DFF096	<u>DMACON</u>	W	*	*	*	*	DMA control write (clear or set)
DFF098	CLXCON	W	*	*	*	*	Collision control
DFF09A	<u>INTENA</u>	W	*	*	*	*	Interrupt enable bits (clear or set bits)
DFF09C	<u>INTREQ</u>	W	*	*	*	*	Interrupt request bits (clear or set bits)
DFF09E	<u>ADKCON</u>	W	*	*	*	*	Audio,disk,UART control
DFF0A0	AUD0LCH	W	*	*	*	*	Audio channel 0 location (high 5 bits was 3 bits)
DFF0A2	AUD0LCL	W	*	*	*	*	Audio channel 0 location (low 15 bits)
DFF0A4	<u>AUD0LEN</u>	W	*	*	*	*	Audio channel 0 length
DFF0A6	<u>AUD0PER</u>	W	*	*	*	*	Audio channel 0 period
DFF0A8	<u>AUD0VOL</u>	W	*	*	*	*	Audio channel 0 volume
DFF0AA	<u>AUD0DAT</u>	W	*	*	*	*	Audio channel 0 data
DFF0B0	AUD1LCH	W	*	*	*	*	Audio channel 1 location (high 5 bits was 3 bits)
DFF0B2	AUD1LCL	W	*	*	*	*	Audio channel 1 location (low 15 bits)
DFF0B4	<u>AUD1LEN</u>	W	*	*	*	*	Audio channel 1 length
DFF0B6	<u>AUD1PER</u>	W	*	*	*	*	Audio channel 1 period
DFF0B8	<u>AUD1VOL</u>	W	*	*	*	*	Audio channel 1 volume
DFF0BA	<u>AUD1DAT</u>	W	*	*	*	*	Audio channel 1 data
DFF0C0	AUD2LCH	W	*	*	*	*	Audio channel 2 location (high 5 bits was 3 bits)
DFF0C2	AUD2LCL	W	*	*	*	*	Audio channel 2 location (low 15 bits)
DFF0C4	<u>AUD2LEN</u>	W	*	*	*	*	Audio channel 2 length
DFF0C6	<u>AUD2PER</u>	W	*	*	*	*	Audio channel 2 period
DFF0C8	AUD2VOL	W	*	*	*	*	Audio channel 2 volume

DEEOCA	AUDODAT	W	*	*	*	*	Audio channel 2 data
	AUD2DAT			<u> </u>			
DFF0CC	AUD2VOL2	W				*	Audio channel 2 volume far side
DFF0D0	AUD3LCH	W	*	*	*	*	Audio channel 3 location (high 5 bits was 3 bits)
DFF0D2	AUD3LCL	W	*	*	*	*	Audio channel 3 location (low 15 bits)
DFF0D4	<u>AUD3LEN</u>	W	*	*	*	*	Audio channel 3 length
DFF0D6	<u>AUD3PER</u>	W	*	*	*	*	Audio channel 3 period
DFF0D8	AUD3VOL	W	*	*	*	*	Audio channel 3 volume
DFF0DA	<u>AUD3DAT</u>	W	*	*	*	*	Audio channel 3 data
		•	*				
DFF0E0	BPL1PTH	W	*	*	*	*	Bitplane pointer 1 (high 5 bits was 3 bits)
DFF0E2	BPL1PTL	W	*	*	*	*	Bitplane pointer 1 (low 15 bits)
DFF0E4	BPL2PTH	W	*	*	*	*	Bitplane pointer 2 (high 5 bits was 3 bits)
DFF0E6	BPL2PTL	W	*	*	*	*	Bitplane pointer 2 (low 15 bits)
DFF0E8	BPL3PTH	W	*	*	*	*	Bitplane pointer 3 (high 5 bits was 3 bits)
DFF0EA	BPL3PTL	W	*	*	*	*	Bitplane pointer 3 (low 15 bits)
DFF0EC	BPL4PTH	W	*	*	*	*	Bitplane pointer 4 (high 5 bits was 3 bits)
DFF0EE	BPL4PTL	W	*	*	*	*	Bitplane pointer 4 (low 15 bits)
DFF0F0	BPL5PTH	W	*	*	*	*	Bitplane pointer 5 (high 5 bits was 3 bits)
DFF0F2	BPL5PTL	W	*	*	*	*	Bitplane pointer 5 (low 15 bits)
DFF0F4	BPL6PTH	W	*	*	*	*	Bitplane pointer 6 (high 5 bits was 3 bits)
DFF0F6	BPL6PTL	W	*	*	*	*	Bitplane pointer 6 (low 15 bits)
DFF0F8	BPL7PTH	W			*	*	Bitplane pointer 7 (high 5 bits was 3 bits)
DFF0FA	BPL7PTL	W			*	*	Bitplane pointer 7 (low 15 bits)
DFF0FC	BPL8PTH	W			*	*	Bitplane pointer 8 (high 5 bits was 3 bits)
DFF0FE	BPL8PTL	W			*	*	Bitplane pointer 8 (low 15 bits)
DFF100	BPLCON0	W	*	*	*	*	Bitplane control (miscellaneous control bits)
DFF102	BPLCON1	W	*	*	*	*	Bitplane control (scroll value)
DFF104	BPLCON2	W	*	*	*	*	Bitplane control (video priority control)
DFF106	BPLCON3	W	*	*	*	*	Bitplane control (enhanced features)
DFF108	BPL1MOD	W	*	*	*	*	Bitplane modulo (odd planes)
DFF10A	BPL2MOD	W	*	*	*	*	Bitplane modulo (even planes)

DFF10C	BPLCON4	W			*	*	Bitplane control (bitplane and spritemasks)
DFF10E	CLXCON2	W			*	*	Extended collision control
DFF110	BPL1DAT	W	*	*	*	*	Bitplane 1 data (parallel to serial convert)
DFF112	BPL2DAT	W	*	*	*	*	Bitplane 2 data (parallel to serial convert)
DFF114	BPL3DAT	W	*	*	*	*	Bitplane 3 data (parallel to serial convert)
DFF116	BPL4DAT	W	*	*	*	*	Bitplane 4 data (parallel to serial convert)
DFF118	BPL5DAT	W	*	*	*	*	Bitplane 5 data (parallel to serial convert)
DFF11A	BPL6DAT	W	*	*	*	*	Bitplane 6 data (parallel to serial convert)
DFF11C	BPL7DAT	W			*	*	Bitplane 7 data (parallel to serial convert)
DFF11E	BPL8DAT	W			*	*	Bitplane 8 data (parallel to serial convert)
DFF120	SPR0PTH	W	*	*	*	*	Sprite 0 pointer (high 5 bits was 3 bits)
DFF122	SPR0PTL	W	*	*	*	*	Sprite 0 pointer (low 15 bits)
DFF124	SPR1PTH	W	*	*	*	*	Sprite 1 pointer (high 5 bits was 3 bits)
DFF126	SPR1PTL	W	*	*	*	*	Sprite 1 pointer (low 15 bits)
DFF128	SPR2PTH	W	*	*	*	*	Sprite 2 pointer (high 5 bits was 3 bits)
DFF12A	SPR2PTL	W	*	*	*	*	Sprite 2 pointer (low 15 bits)
DFF12C	SPR3PTH	W	*	*	*	*	Sprite 3 pointer (high 5 bits was 3 bits)
DFF12E	SPR3PTL	W	*	*	*	*	Sprite 3 pointer (low 15 bits)
DFF130	SPR4PTH	W	*	*	*	*	Sprite 4 pointer (high 5 bits was 3 bits)
DFF132	SPR4PTL	W	*	*	*	*	Sprite 4 pointer (low 15 bits)
DFF134	SPR5PTH	W	*	*	*	*	Sprite 5 pointer (high 5 bits was 3 bits)
DFF136	SPR5PTL	W	*	*	*	*	Sprite 5 pointer (low 15 bits)
DFF138	SPR6PTH	W	*	*	*	*	Sprite 6 pointer (high 5 bits was 3 bits)
DFF13A	SPR6PTL	W	*	*	*	*	Sprite 6 pointer (low 15 bits)
DFF13C	SPR7PTH	W	*	*	*	*	Sprite 7 pointer (high 5 bits was 3 bits)

DFF13E SPR7PTL	W	*	*	*	*	Sprite 7 pointer (low 15 bits)
DFF140 SPR0POS	W	*	*	*	*	Sprite 0 vert,horiz start pos data
DFF142 SPROCTL	W	*	*	*	*	Sprite 0 position and control data
DFF144 SPR0DATA	W	*	*	*	*	Sprite 0 image data register A
DFF146 SPR0DATB	W	*	*	*	*	Sprite 0 image data register B
DFF148 SPR1POS	W	*	*	*	*	Sprite 1 vert,horiz start pos data
DFF14A SPR1CTL	W	*	*	*	*	Sprite 1 position and control data
DFF14C SPR1DATA	W	*	*	*	*	Sprite 1 image data register A
DFF14E SPR1DATB	W	*	*	*	*	Sprite 1 image data register B
DFF150 SPR2POS	W	*	*	*	*	Sprite 2 vert,horiz start pos data
DFF152 SPR2CTL	W	*	*	*	*	Sprite 2 position and control data
DFF154 SPR2DATA	W	*	*	*	*	Sprite 2 image data register A
DFF156 SPR2DATB	W	*	*	*	*	Sprite 2 image data register B
DFF158 SPR3POS	W	*	*	*	*	Sprite 3 vert, horiz start pos data
DFF15A SPR3CTL	W	*	*	*	*	Sprite 3 position and control data
DFF15C SPR3DATA	W	*	*	*	*	Sprite 3 image data register A
DFF15E SPR3DATB	W	*	*	*	*	Sprite 3 image data register B
DFF160 SPR4POS	W	*	*	*	*	Sprite 4 vert, horiz start pos data
DFF162 SPR4CTL	W	*	*	*	*	Sprite 4 position and control data
DFF164 SPR4DATA	W	*	*	*	*	Sprite 4 image data register A
DFF166 SPR4DATB	W	*	*	*	*	Sprite 4 image data register B
DFF168 SPR5POS	W	*	*	*	*	Sprite 5 vert,horiz start pos data
DFF16A SPR5CTL	W	*	*	*	*	Sprite 5 position and control data
DFF16C SPR5DATA	W	*	*	*	*	Sprite 5 image data register A
DFF16E SPR5DATB	W	*	*	*	*	Sprite 5 image data register B
DFF170 SPR6POS	W	*	*	*	*	Sprite 6 vert,horiz start pos data
DFF172 SPR6CTL	W	*	*	*	*	Sprite 6 position and control data
DFF174 SPR6DATA	W	*	*	*	*	Sprite 6 image data register A
DFF176 SPR6DATB	W	*	*	*	*	Sprite 6 image data register B
DFF178 SPR7POS	W	*	*	*	*	Sprite 7 vert,horiz start pos data
DFF17A SPR7CTL	W	*	*	*	*	Sprite 7 position and control data
DFF17C SPR7DATA	W	*	*	*	*	Sprite 7 image data register A
DFF17E SPR7DATB	W	*	*	*	*	Sprite 7 image data register B
DFF180 COLOR00	W	*	*	*	*	Color table 0
DFF182 COLOR01	W	*	*	*	*	Color table 1
DFF184 COLOR02	W	*	*	*	*	Color table 2
DFF186 COLOR03	W	*	*	*	*	Color table 3
DFF188 COLOR04	W	*	*	*	*	Color table 4

DFF18C COLOR06 W # # # Color table 6	DFF18A	COLOR05	W	*	*	*	*	Color table 5
DFF190 COLOR08 W	DFF18C	COLOR06	W	*	*	*	*	Color table 6
DFF192	DFF18E	COLOR07	W	*	*	*	*	Color table 7
DFF194	DFF190	COLOR08	W	*	*	*	*	Color table 8
DFF198	DFF192	COLOR09	W	*	*	*	*	Color table 9
DFF198	DFF194	COLOR10	W	*	*	*	*	Color table 10
	DFF196	COLOR11	W	*	*	*	*	Color table 11
DFF19C COLOR14 W * * * * Color table 14	DFF198	COLOR12	W	*	*	*	*	Color table 12
DFF19E COLOR15	DFF19A	COLOR13	W	*	*	*	*	Color table 13
DFF1A0	DFF19C	COLOR14	W	*	*	*	*	Color table 14
DFF1A0	DFF19E	COLOR15	W	*	*	*	*	Color table 15
DFF1A4 COLOR18 W * * * * Color table 18	DFF1A0	COLOR16	W	*	*	*	*	Color table 16
DFF1A6	DFF1A2	COLOR17	W	*	*	*	*	Color table 17
DFF1A8 COLOR20 W * * * * Color table 20	DFF1A4	COLOR18	W	*	*	*	*	Color table 18
DFF1AA COLOR21 W * * * * Color table 21	DFF1A6	COLOR19	W	*	*	*	*	Color table 19
DFF1AC COLOR22 W * * * * * * * * Color table 22	DFF1A8	COLOR20	W	*	*	*	*	Color table 20
DFF1AE COLOR23 W * * * * Color table 23	DFF1AA	COLOR21	W	*	*	*	*	Color table 21
DFF1B0 COLOR24 W * * * * Color table 24	DFF1AC	COLOR22	W	*	*	*	*	Color table 22
DFF1B2 COLOR25 W * * * * Color table 25	DFF1AE	COLOR23	W	*	*	*	*	Color table 23
DFF1B4	DFF1B0	COLOR24	W	*	*	*	*	Color table 24
DFF1B6 COLOR27 W * * * * Color table 27 DFF1B8 COLOR28 W * * * * Color table 28 DFF1BA COLOR29 W * * * * * Color table 29 DFF1BC COLOR30 W * * * * * Color table 30 DFF1BE COLOR31 W * * * * Color table 31 DFF1C0 HTOTAL W * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1C8 VTOTAL W * * * Vertical line position for VSYNC stop	DFF1B2	COLOR25	W	*	*	*	*	Color table 25
DFF1B8 COLOR28 W * * * * Color table 28 DFF1BA COLOR29 W * * * * Color table 29 DFF1BC COLOR30 W * * * Color table 30 DFF1BE COLOR31 W * * * Color table 31 DFF1C0 HTOTAL W * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1C8 VTOTAL W * * * Wigner Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * Wertical line position for VSYNC stop	DFF1B4	COLOR26	W	*	*	*	*	Color table 26
DFF1BA COLOR29 W * * * * * Color table 29 DFF1BC COLOR30 W * * * * * Color table 30 DFF1BE COLOR31 W * * * * * Color table 31 DFF1CO HTOTAL W * * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1C8 VTOTAL W * * * Wertical line position for VSYNC stop	DFF1B6	COLOR27	W	*	*	*	*	Color table 27
DFF1BC COLOR30 W * * * * Color table 30 DFF1BE COLOR31 W * * * * Color table 31 DFF1C0 HTOTAL W * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1C8 VTOTAL W * * * Vertical line position for VSYNC stop	DFF1B8	COLOR28	W	*	*	*	*	Color table 28
DFF1BE COLOR31 W * * * Color table 31 DFF1C0 HTOTAL W * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * Vertical line position for VSYNC stop	DFF1BA	COLOR29	W	*	*	*	*	Color table 29
DFF1C0 HTOTAL W * * * Highest number count, horiz line (VARBEAMEN=1) DFF1C2 HSSTOP W * * * Horizontal line position for HSYNC stop DFF1C4 HBSTRT W * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * * Vertical line position for VSYNC stop	DFF1BC	COLOR30	W	*	*	*	*	Color table 30
DFF1C0 HIOTAL W W W W W W W W W	DFF1BE	COLOR31	W	*	*	*	*	Color table 31
DFF1C0 HIOTAL W W W W W W W W W					-			
DFF1C2 HSSTOP W Stop DFF1C4 HBSTRT W * * * Horizontal line position for HBLANK start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * * Vertical line position for VSYNC stop	DFF1C0	HTOTAL	W		*	*	*	-
DFF1C4 HBSTRT W * * * start DFF1C6 HBSTOP W * * * Horizontal line position for HBLANK stop DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * * Vertical line position for VSYNC stop	DFF1C2	HSSTOP	W		*	*	*	_
DFF1C8 VTOTAL W * * * Highest numbered vertical line (VARBEAMEN=1) DFF1CA VSSTOP W * * * Vertical line position for VSYNC stop	DFF1C4	HBSTRT	W		*	*	*	-
DFF1C8 VIOTAL W	DFF1C6	HBSTOP	W		*	*	*	-
Vertical line position for voltre stop	DFF1C8	VTOTAL	W		*	*	*	-
DFF1CC VBSTRT W * * Vertical line for VBLANK start	DFF1CA	VSSTOP	W		*	*	*	Vertical line position for VSYNC stop
	DFF1CC	<u>VBSTRT</u>	W		*	*	*	Vertical line for VBLANK start

DFF1CE	<u>VBSTOP</u>	W		*	*	*	Vertical line for VBLANK stop
DFF1D0	<u>SPRHSTRT</u>	W		*	*	*	UHRES sprite vertical start
DFF1D2	<u>SPRHSTOP</u>	W		*	*	*	UHRES sprite vertical stop
DFF1D4	<u>BPLHSTRT</u>	W		*	*	*	UHRES bit plane vertical start
DFF1D6	<u>BPLHSTOP</u>	W		*	*	*	UHRES bit plane vertical stop
DFF1D8	HHPOSW	W		*	*	*	DUAL mode hires H beam counter write
DFF1DA	HHPOSR	R		*	*	*	DUAL mode hires H beam counter read
DFF1DC	BEAMCON0	W	*	*	*	*	Beam counter control register (SHRES,UHRES,PAL)
DFF1DE	<u>HSSTRT</u>	W		*	*	*	Horizontal sync start (VARHSY)
DFF1E0	<u>VSSTRT</u>	W		*	*	*	Vertical sync start (VARVSY)
DFF1E2	<u>HCENTER</u>	W		*	*	*	Horizontal position for Vsync on interlace
DFF1E4	DIWHIGH	W		*	*	*	Display window - upper bits for start/stop
DFF1E6	BPLHMOD	W				*	Chunky plane modulo
DFF1E8	<u>SPRHPTH</u>	W		*	*	*	UHRES sprite pointer (high 5 bits)
DFF1EA	<u>SPRHPTL</u>	W		*	*	*	UHRES sprite pointer (low 15 bits)
DFF1EC	<u>BPLHPTH</u>	W				*	Chunky plane pointer (hi 15 bits)
	BPLHPTH BPLHPTL	W				*	Chunky plane pointer (hi 15 bits) Chunky plane pointer (lo 15 bits)
DFF1EE							
DFF1EE	BPLHPTL GFXMODE	W			*	*	Chunky plane pointer (lo 15 bits)
DFF1EE DFF1F4	BPLHPTL GFXMODE	W W W				* * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat
DFF1EE DFF1F4	BPLHPTL GFXMODE	W W	OCS	ECS		* * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat
DFF1EE DFF1F4 DFF1FC Address	BPLHPTL GFXMODE FMODE	W W W Access	OCS	ECS		* * SAGA *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register
DFF1EE DFF1F4 DFF1FC Address DFF202	BPLHPTL GFXMODE FMODE Name	W W W	OCS	ECS		* * * SAGA	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c	BPLHPTL GFXMODE FMODE Name DMACON2 Read	W W W Access	OCS	ECS		* * SAGA *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read	W W W Access R R	OCS	ECS		* * SAGA *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register
DFF1EE DFF1FC Address DFF202 DFF21c DFF21E DFF220	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read	W W W Access R R R	OCS	ECS		* * * SAGA * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF222	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons	W W W Access R R R	OCS	ECS		* * * SAGA * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons	W W W Access R R R R	OCS	ECS		* * * SAGA * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active 16bit USB Joy Buttons (0)=active
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons joy2buttons	W W W Access R R R R R	OCS	ECS		* * SAGA * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active 16bit USB Joy Buttons (0)=active 16bit USB Joy Buttons (0)=active
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224 DFF224	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons joy2buttons	W W W Access R R R R R	OCS	ECS		* * SAGA * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active 16bit USB Joy Buttons (0)=active 16bit USB Joy Buttons (0)=active
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224 DFF224 DFF230	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTENA2 Read joy0buttons joy1buttons joy2buttons joy2buttons joy3buttons	W W W Access R R R R R R R	OCS	ECS		* * * SAGA * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224 DFF224 DFF226 DFF230 DFF232	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons joy2buttons joy3buttons clxdat0	W W W Access R R R R R R	OCS	ECS		* * * * * * * * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active Sprite0 Detailed Collision
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224 DFF224 DFF230 DFF232 DFF234	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons joy2buttons joy3buttons clxdat0 clxdat1	W W W Access R R R R R R R		ECS		* * * * * * * * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active Sprite0 Detailed Collision Sprite1 Detailed Collision
DFF1EE DFF1F4 DFF1FC Address DFF202 DFF21c DFF21E DFF220 DFF224 DFF224 DFF230 DFF232 DFF234 DFF234	BPLHPTL GFXMODE FMODE Name DMACON2 Read INTENA2 Read INTREQ2 Read joy0buttons joy1buttons joy2buttons joy3buttons clxdat0 clxdat1 clxdat2	W W W Access R R R R R R R R R		ECS		* * * * * * * * * * * * *	Chunky plane pointer (lo 15 bits) Set Resolution and Pixformat Fetch mode register Description 16bit USB Joy Buttons (0)=active Sprite0 Detailed Collision Sprite1 Detailed Collision Sprite2 Detailed Collision

DFF23C	clxdat6	R				*	Sprite6 Detailed Collision
DFF23E	clxdat7	R				*	Sprite7 Detailed Collision
DFF296	DMACON2	W				*	DMACON2
DFF29A	INTENA2	W				*	INTENA2
DFF29C	INTREQ2	W				*	INTREQ2
DFF380	<u>PlanarCOLH</u>	W				*	32bit Planar COLOR Port register
DFF382	<u>PlanarCOLL</u>	W				*	256 Color Register, Format [ID,RR,GG,BB]
DFF384	<u>SpriteCOLH</u>	W				*	32bit Sprite COLOR Port register
DFF386	<u>SpriteCOLL</u>	W				*	256 Color Register, Format [ID,RR,GG,BB]
DFF388	<u>ChunkyCOLH</u>	W				*	32bit Chunky COLOR Port register
DFF38A	ChunkyCOLL	W				*	256 Color Register, Format [ID,RR,GG,BB]
DFF38C	<u>PIPCOLH</u>	W				*	32bit PIP COLOR Port register
DFF38E	PIPCOLL	W				*	256 Color Register, Format [ID,RR,GG,BB]
DFF3D0	<u>PipXStrt</u>	W				*	X start
DFF3D2	<u>PipYStrt</u>	W				*	Y start
DFF3D4	<u>PipXStop</u>	W				*	X stop
		W				*	Y stop
DFF3D8	<u>PipPtr</u>	W				*	32 bit Ptr
	<u>PipFormat</u>	W				*	Colorformat (8bit/16bit/15bit/YUV)
DFF3DE	<u>PipModulo</u>	W				*	Modulo
DFF3E0	<u>PipColorKey</u>	W				*	ColorKey 1000,RRRR,GGGG,BBBB
DFF3E2	<u>PipDMARowLen</u>	W				*	PipDMARowLen
DFF3FC	VAMPIRE VERSION	R				*	8bit Card Version / 8bit clock multiplier
Address	Name		OCS	ECS	AGA	SAGA	Description
DFF400	AUD0L	W				*	Audio channel 0 location (32bit PTR)
DFF402	AUD0L	W				*	
DFF404	AUD0LEN	W				*	Audio channel 0 length (32bit)
DFF406	AUD0LEN	W				*	
DFF408	AUD0VOL	W				*	2x8bit VOL (LEFT/RIGHT)
DFF40A	AUD0CTRL	W				*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF40C	<u>AUD0PER</u>	W				*	16bit PERIOD
DFF410	AUD1L	W				*	Audio channel 1 location (32bit PTR)
DFF412	AUD1L	W				*	
DFF414	<u>AUD1LEN</u>	W				*	Audio channel 1 length (32bit)

DFF416	<u>AUD1LEN</u>	W	*	
DFF418	<u>AUD1VOL</u>	W	*	2x8bit VOL (LEFT/RIGHT)
DFF41A	AUD1CTRL	W	*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF41C	<u>AUD1PER</u>	W	*	16bit PERIOD
DFF420	AUD2L	W	*	Audio channel 2 location (32bit PTR)
DFF422	AUD2L	W	*	
DFF424	<u>AUD2LEN</u>	W	*	Audio channel 2 length (32bit)
DFF426	AUD2LEN	W	*	
DFF428	AUD2VOL	W	*	2x8bit VOL (LEFT/RIGHT)
DFF42A	AUD2CTRL	W	*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF42C	<u>AUD2PER</u>	W	*	16bit PERIOD
DFF430	<u>AUD3L</u>	W	*	Audio channel 1 location (32bit PTR)
DFF432	<u>AUD3L</u>	W	*	
DFF434	<u>AUD3LEN</u>	W	*	Audio channel 3 length (32bit)
DFF436	<u>AUD3LEN</u>	W	*	
DFF438	<u>AUD3VOL</u>	W	*	2x8bit VOL (LEFT/RIGHT)
DFF43A	AUD3CTRL	W	*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF43C	<u>AUD3PER</u>	W	*	16bit PERIOD
DFF440	<u>AUD4L</u>	W	*	Audio channel 4 location (32bit PTR)
DFF442	AUD4L	W	*	
DFF444	<u>AUD4LEN</u>	W	*	Audio channel 4 length (32bit)
DFF446	<u>AUD4LEN</u>	W	*	
DFF448	AUD4VOL	W	*	2x8bit VOL (LEFT/RIGHT)
DFF44A	AUD4CTRL	W	*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF44C	<u>AUD4PER</u>	W	*	16bit PERIOD
DFF450	AUD5L	W	*	Audio channel 5 location (32bit PTR)
DFF452	AUD5L	W	*	
DFF454	<u>AUD5LEN</u>	W	*	Audio channel 5 length (32bit)
DFF456	AUD5LEN	W	*	
DFF458	AUD5VOL	W	*	2x8bit VOL (LEFT/RIGHT)
DFF45A	AUD5CTRL	W	*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF45C	<u>AUD5PER</u>	W	*	16bit PERIOD
DFF460	AUD6L	W	*	Audio channel 6 location (32bit PTR)
DFF462	AUD6L	W	*	
DFF464	<u>AUD6LEN</u>	W	*	Audio channel 6 length (32bit)

DFF466	AUD6LEN	W		*	
DFF468	AUD6VOL	W		*	2x8bit VOL (LEFT/RIGHT)
DFF46A	AUD6CTRL	W		*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF46C	AUD6PER	W		*	16bit PERIOD
DFF470	AUD7L	W		*	Audio channel 7 location (32bit PTR)
DFF472	AUD7L	W		*	
DFF474	AUD7LEN	W		*	Audio channel 7 length (32bit)
DFF476	<u>AUD7LEN</u>	W		*	
DFF478	AUD7VOL	W		*	2x8bit VOL (LEFT/RIGHT)
DFF47A	AUD7CTRL	W		*	16 Control bits 2= Stereo 1= Oneshot 0= (8bit/16bit)
DFF47C	AUD7PER	W		*	16bit PERIOD