

### 1.1.1. PWM Registers

(Base Address Refers to the Register of index D3h-D0h, IDSEL = AD18/SB of PCI Configuration Register)

IO Address	Register Name	Section
BA + 00h	SERVO Interrupt Mask Register	11.2.25
BA + 04h	SERVO Interrupt Status Register	11.2.25
BA + 08h	SERVO Sync Register	11.2.25
BA + 0Ch	SERVO[0] Pulse Low Count Register	11.2.25
BA + 10h	SERVO[0] Pulse High Count Register	11.2.25
BA + 14h	SERVO[0] Control Register	11.2.25
BA + 18h	SERVO[1] Pulse Low Count Register	11.2.25
BA + 1Ch	SERVO[1] Pulse High Count Register	11.2.25
BA + 20h	SERVO[1] Control Register	11.2.25
BA + 24h	SERVO[2] Pulse Low Count Register	11.2.25
BA + 28h	SERVO[2] Pulse High Count Register	11.2.25
BA + 2Ch	SERVO[2] Control Register	11.2.25
BA + 30h	SERVO[3] Pulse Low Count Register	11.2.25
BA + 34h	SERVO[3] Pulse High Count Register	11.2.25
BA + 38h	SERVO[3] Control Register	11.2.25
BA + 3Ch	SERVO[4] Pulse Low Count Register	11.2.25
BA + 40h	SERVO[4] Pulse High Count Register	11.2.25
BA + 44h	SERVO[4] Control Register	11.2.25
BA + 48h	SERVO[5] Pulse Low Count Register	11.2.25
BA + 4Ch	SERVO[5] Pulse High Count Register	11.2.25
BA + 50h	SERVO[5] Control Register	11.2.25
BA + 54h	SERVO[6] Pulse Low Count Register	11.2.25
BA + 58h	SERVO[6] Pulse High Count Register	11.2.25
BA + 5Ch	SERVO[6] Control Register	11.2.25
BA + 60h	SERVO[7] Pulse Low Count Register	11.2.25
BA + 64h	SERVO[7] Pulse High Count Register	11.2.25
BA + 68h	SERVO[7] Control Register	11.2.25
BA + 6Ch	SERVO[8] Pulse Low Count Register	11.2.25
BA + 70h	SERVO[8] Pulse High Count Register	11.2.25
BA + 74h	SERVO[8] Control Register	11.2.25
BA + 78h	SERVO[9] Pulse Low Count Register	11.2.25
BA + 7Ch	SERVO[9] Pulse High Count Register	11.2.25
BA + 80h	SERVO[9] Control Register	11.2.25
BA + 84h	SERVO[10] Pulse Low Count Register	11.2.25
BA + 88h	SERVO[10] Pulse High Count Register	11.2.25
BA + 8Ch	SERVO[10] Control Register	11.2.25

<b>IO Address</b>	<b>Register Name</b>	<b>Section</b>
BA + 90h	SERVO[11] Pulse Low Count Register	11.2.25
BA + 94h	SERVO[11] Pulse High Count Register	11.2.25
BA + 98h	SERVO[11] Control Register	11.2.25
BA + 9Ch	SERVO[12] Pulse Low Count Register	11.2.25
BA + A0h	SERVO[12] Pulse High Count Register	11.2.25
BA + A4h	SERVO[12] Control Register	11.2.25
BA + A8h	SERVO[13] Pulse Low Count Register	11.2.25
BA + Ach	SERVO[13] Pulse High Count Register	11.2.25
BA + B0h	SERVO[13] Control Register	11.2.25
BA + B4h	SERVO[14] Pulse Low Count Register	11.2.25
BA + B8h	SERVO[14] Pulse High Count Register	11.2.25
BA + BCh	SERVO[14] Control Register	11.2.25
BA + C0h	SERVO[15] Pulse Low Count Register	11.2.25
BA + C4h	SERVO[15] Pulse High Count Register	11.2.25
BA + C8h	SERVO[15] Control Register	11.2.25
BA + CCh	SERVO[16] Pulse Low Count Register	11.2.25
BA + D0h	SERVO[16] Pulse High Count Register	11.2.25
BA + D4h	SERVO[16] Control Register	11.2.25
BA + D8h	SERVO[17] Pulse Low Count Register	11.2.25
BA + DCh	SERVO[17] Pulse High Count Register	11.2.25
BA + E0h	SERVO[17] Control Register	11.2.25
BA + E4h	SERVO[18] Pulse Low Count Register	11.2.25
BA + E8h	SERVO[18] Pulse High Count Register	11.2.25
BA + Ech	SERVO[18] Control Register	11.2.25
BA + F0h	SERVO[19] Pulse Low Count Register	11.2.25
BA + F4h	SERVO[19] Pulse High Count Register	11.2.25
BA + F8h	SERVO[19] Control Register	11.2.25
BA + FCh	SERVO[20] Pulse Low Count Register	11.2.25
BA + 100h	SERVO[20] Pulse High Count Register	11.2.25
BA + 104h	SERVO[20] Control Register	11.2.25
BA + 108h	SERVO[21] Pulse Low Count Register	11.2.25
BA + 10Ch	SERVO[21] Pulse High Count Register	11.2.25
BA + 110h	SERVO[21] Control Register	11.2.25
BA + 114h	SERVO[22] Pulse Low Count Register	11.2.25
BA + 118h	SERVO[22] Pulse High Count Register	11.2.25
BA + 11Ch	SERVO[22] Control Register	11.2.25
BA + 120h	SERVO[23] Pulse Low Count Register	11.2.25
BA + 124h	SERVO[23] Pulse High Count Register	11.2.25

IO Address	Register Name	Section
BA + 128h	SERVO[23] Control Register	11.2.25
BA + 12Ch	SERVO[24] Pulse Low Count Register	11.2.25
BA + 130h	SERVO[24] Pulse High Count Register	11.2.25
BA + 134h	SERVO[24] Control Register	11.2.25
BA + 138h	SERVO[25] Pulse Low Count Register	11.2.25
BA + 13Ch	SERVO[25] Pulse High Count Register	11.2.25
BA + 140h	SERVO[25] Control Register	11.2.25
BA + 144h	SERVO[26] Pulse Low Count Register	11.2.25
BA + 148h	SERVO[26] Pulse High Count Register	11.2.25
BA + 14Ch	SERVO[26] Control Register	11.2.25
BA + 150h	SERVO[27] Pulse Low Count Register	11.2.25
BA + 154h	SERVO[27] Pulse High Count Register	11.2.25
BA + 158h	SERVO[27] Control Register	11.2.25
BA + 15Ch	SERVO[28] Pulse Low Count Register	11.2.25
BA + 160h	SERVO[28] Pulse High Count Register	11.2.25
BA + 164h	SERVO[28] Control Register	11.2.25
BA + 168h	SERVO[29] Pulse Low Count Register	11.2.25
BA + 16Ch	SERVO[29] Pulse High Count Register	11.2.25
BA + 170h	SERVO[29] Control Register	11.2.25
BA + 174h	SERVO[30] Pulse Low Count Register	11.2.25
BA + 178h	SERVO[30] Pulse High Count Register	11.2.25
BA + 17Ch	SERVO[30] Control Register	11.2.25
BA + 180h	SERVO[31] Pulse Low Count Register	11.2.25
BA + 184h	SERVO[31] Pulse High Count Register	11.2.25
BA + 188h	SERVO[31] Control Register	11.2.25

### 1.1.2. SERVO Registers

**I/O Port:** BA + 00h  
**Register Name:** SERVO Interrupt Mask Register  
**Reset Value:** 00000000h

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
SIM[31-0]																															

Bit	Name	Attribute	Description
31-0	SIM[31-0]	R/W	SERVO[31-0] Interrupt Mask Register

			1: Enable Interrupt 0: Disable Interrupt
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**I/O Port:** BA + 04h  
**Register Name:** SERVO Interrupt Status Register  
**Reset Value:** 00000000h

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
SIS[31-0]																															

Bit	Name	Attribute	Description
31-0	SIS[31-0]	R/W	SERVO[31-0] Interrupt Status Register 1: Interrupt happen and write “1” to clear 0: No Interrupt

**I/O Port:** BA + 08h  
**Register Name:** SERVO Sync Status Register  
**Reset Value:** 00000000h

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
SYNC[31-0]																															

Bit	Name	Attribute	Description
31-0	SYNC[31-0]	R/W	SERVO[31-0] Sync Register 1: SERVO will be hold 0: SERVO without hold

**I/O Port:** BA + 0Ch, 18h, 24h, 30h, 3Ch, 48h, 54h, 60h, 6Ch, 78h, 84h, 90h, 9Ch, A8h, B4h, C0h, CCh, D8h, E4h, F0h, FCh, 108h, 114h, 120h, 12Ch, 138h, 144h, 150h, 15Ch, 168h, 174h, 180h  
**Register Name:** SERVO Pulse Low Register  
**Reset Value:** 00000000h

31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

SPL																																					
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Bit	Name	Attribute	Description
31-0	SPL	R/W	SERVO Pulse Low Register. SERVO clock is 10MHz

**I/O Port:** BA + 10h, 1Ch, 28h, 34h, 40h, 4Ch, 58h, 64h, 70h, 7Ch, 88h, 94h, A0h, Ach, B8h, C4h, D0h, DCh, E8h, F4h, 100h, 10Ch, 118h, 124h, 130h, 13Ch, 148h, 154h, 160h, 16Ch, 178h, 184h

**Register Name:** SERVO Pulse High Register

**Reset Value:** 00000000h

31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

SPH																																					
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Bit	Name	Attribute	Description
31-0	SPH	R/W	SERVO Pulse High Register. SERVO clock is 10MHz

**I/O Port:** BA + 14h, 20h, 2Ch, 38h, 44h, 50h, 5Ch, 68h, 74h, 80h, 8Ch, 98h, A4h, B0h, BCh, C8h, D4h, E0h, Ech, F8h, 104h, 110h, 11Ch, 128h, 134h, 140h, 14Ch, 158h, 164h, 170h, 17Ch, 188h

**Register Name:** SERVO Control Register

**Reset Value:** 00000000h

31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

SE	CM	INV	Rsv	RC																																
		S	d																																	

Bit	Name	Attribute	Description
31	SE	R/W	SERVOx Enable Control 1: SERVOx enable 0: SERVOx disable
30	CM	R/W	SERVOx Continuous Mode

			1: SERVOx Continuous Mode enable 0: SERVOx Continuous Mode disable
29	INVS	R/W	Inverse SERVO signal 0: default SERVO out '0', SPH specify 'I', SPL specify "0". 1: Inverse output signal of upper case
28	Rsvd	RO	Reserved
27-0	RC	R/W	SERVOx Repeat Count. It is used when CM=0.

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