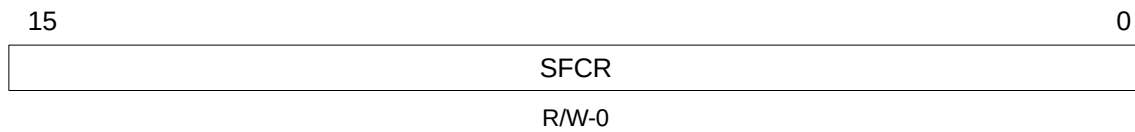


Аппаратный генератор углов v0.01.  
Техническое справочное руководство.

**Suppression Filter Compare Register (HWASFCR)**

Offset = 00h

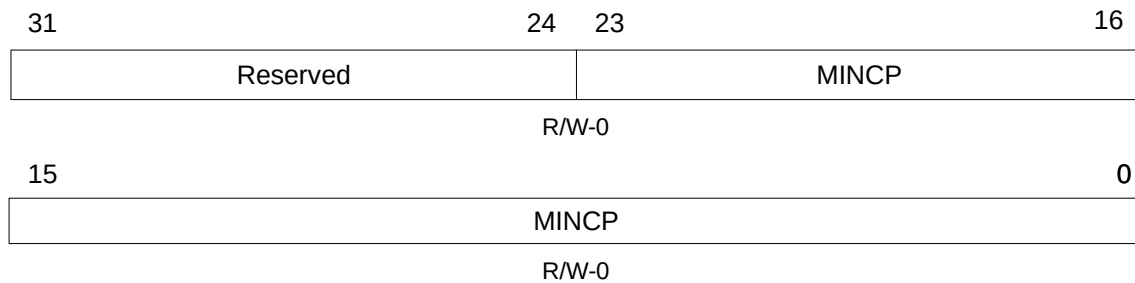
**Suppression Filter Compare Register (HWASFCR)**

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
15-0	SFCR		Counter Compare Value

**Minimum Capture Period Register (HWAMINCPR)**

Offset = 02h (15:0), Offset = 04h (31:16)

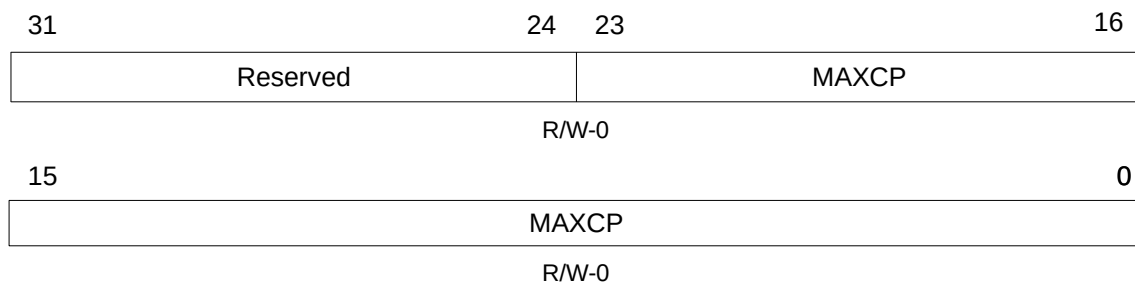
**Minimum Capture Period Register (HWAMINCPR)**

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
31-24	Reserved		
23-0	MINCP	0-FFFFFFh	Minimum Capture Period Value

**Maximum Capture Period Register (HWAMAXCPR)**

Offset = 06h (15:0), Offset = 08h (31:16)

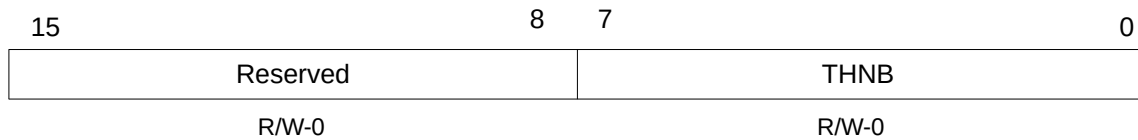
**Maximum Capture Period Register (HWAMAXCPR)**

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
31-24	Reserved		
23-0	MAXCP	0-FFFFFFh	Minimum Capture Period Value

**HWAG Teeth Number Register (HWATHNB)**

Offset = 0Ah

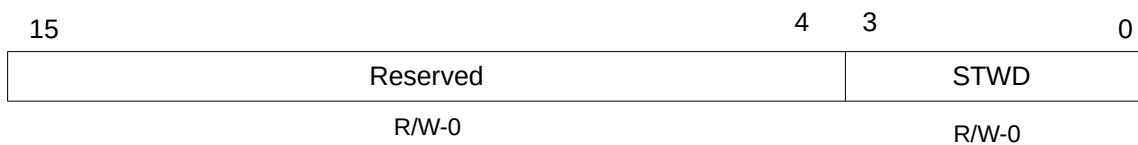
**HWAG Teeth Number Register (HWATHNB)**

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
15-8	Reserved	0	Reads return 0.
7-0	THNB	0-FFh	Teeth Number. Sets the teeth number with the maximum value of the toothed wheel. This must be equal to N-1 real teeth (that is, 57 for a 60-2 toothed wheel).

**HWAG Step Width Register (HWASTD)**

Offset = 0Ch

**HWAG Step Width Register (HWASTD)**

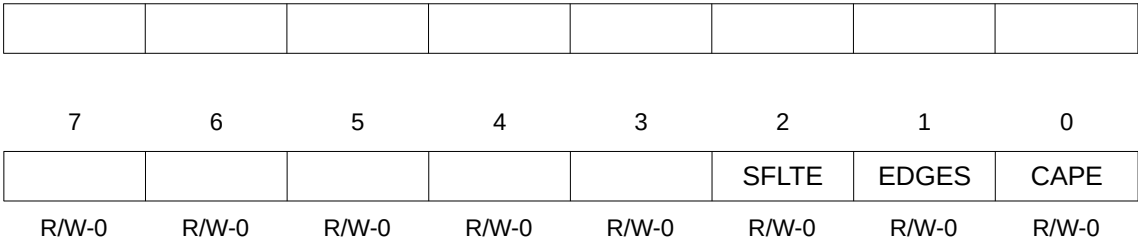
LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
15-4	Reserved	0	Reads return 0.
3-0	STWD	0-Ffh	Step Width. Sets the step width for the tick generation, dividing the period into K steps. (131072, 65536, ..., 8, 4). The step count is decoded from the three LSBs using the following encoding:
		0h	4 ticks per period
		1h	8 ticks per period
		2h	16 ticks per period
		:	:
		Eh	65536 ticks per period
		Fh	131072 ticks per period

Global Configuration Set Register 0 (HWAGCSR0)

Offset = 80h

Global Configuration Set Register 0 (HWAGCSR0)



LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
2	SFLTE	0	Suppression Filter Enable. Read: Suppression Filter is disabled. Write: Writes have no effect.
		1	Read: Suppression Filter is enabled. Write: Suppression Filter is enabled.
1	EDGES	0	Edge Select. Read: Rise edge selected. Write: Writes have no effect.
		1	Read: Fall edge selected. Write: Fall edge selected.
0	CAPE	0	Capture Enable. Read: Capture disabled. Write: Writes have no effect.
		1	Read: Capture enabled. Write: Capture enabled.

**Global Configuration Clear Register 0 (HWAGCCR0)**

Offset = 82h

**Global Configuration Clear Register 0 (HWAGCCR0)**

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7	6	5	4	3	2	1	0
					SFLTE	EDGES	CAPE
R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
2	SFLTE	0 1	Suppression Filter Enable. Read: Suppression Filter is disabled. Write: Writes have no effect. Read: Suppression Filter is enabled. Write: Suppression Filter is disabled.
1	EDGES	0 1	Edge Select. Read: Rise edge selected. Write: Writes have no effect. Read: Fall edge selected. Write: Rise edge selected.
0	CAPE	0 1	Capture Enable. Read: Capture disabled. Write: Writes have no effect. Read: Capture enabled. Write: Capture disabled.

**Interrupt Enable Set Register (HWAIESR)**

Offset = 84h

**Interrupt Enable Set Register (HWAIESR)**

7	6	5	4	3	2	1	0
				GDNTIE	GAPIE	POVFIE	CAPIE
R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
2		0 1	Read: Write: Writes have no effect. Read: Write:
1	POVFIE	0 1	Period counter overflow interrupt enable. Read: Period counter overflow interrupt disabled. Write: Writes have no effect. Read: Period counter overflow interrupt enabled. Write: Period counter overflow interrupt enabled.
0	CAPIE	0 1	Capture Interrupt Enable. Read: Capture Interrupt disabled. Write: Writes have no effect. Read: Capture Interrupt enabled. Write: Capture Interrupt enabled.

**Interrupt Enable Clear Register (HWAIECR)**

Offset = 86h

**Interrupt Enable Clear Register (HWAIECR)**

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7	6	5	4	3	2	1	0
				GDNTIE	GAPIE	POVFIE	CAPIE
R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
2		0 1	Read: Write: Writes have no effect. Read: Write:
1	POVFIE	0 1	Period counter overflow interrupt enable. Read: Period counter overflow interrupt disabled. Write: Writes have no effect. Read: Period counter overflow interrupt enabled. Write: Period counter overflow interrupt disabled.
0	CAPIE	0 1	Capture Interrupt Enable. Read: Capture Interrupt disabled. Write: Writes have no effect. Read: Capture Interrupt enabled. Write: Capture Interrupt disabled.

**Interrupt Flag Register (HWAIFR)**

Offset = 88h

**Interrupt Flag Register (HWAIFR)**

7	6	5	4	3	2	1	0
				GDNTIF	GAPIF	POVFIF	CAPIF
R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0

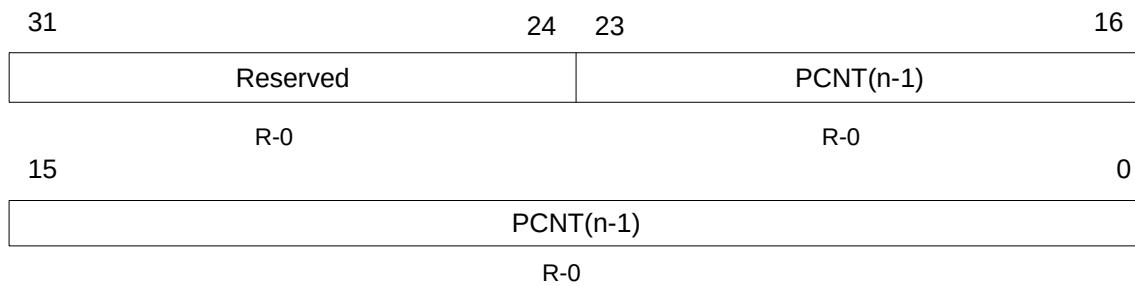
LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
3	GDNTIF	0	Gap During Normal Tooth Interrupt Flag. Read: No interrupt is pending. Write: Writes have no effect.
		1	Read: Gap During Normal Tooth Interrupt is pending. Write: Clear Gap During Normal Tooth Interrupt Flag
2	GAPIF	0	Gap Interrupt Flag. Read: No interrupt is pending. Write: Writes have no effect.
		1	Read: Gap Interrupt is pending. Write: Clear Gap Interrupt Flag.
1	POVFIF	0	Period counter Overflow Interrupt Flag. Read: No interrupt is pending. Write: Writes have no effect.
		1	Read: Period counter Overflow Interrupt is pending. Write: Clear Period counter Overflow Interrupt Flag.
0	CAPIF	0	Capture Interrupt Flag. Read: No interrupt is pending. Write: Writes have no effect.
		1	Read: Capture Interrupt is pending. Write: Clear capture interrupt flag.



**HWAG Previous Tooth Period Value Register (HWAPCNT1)**

Offset = 8Ah (15:0), Offset = 8Ch (31:16)

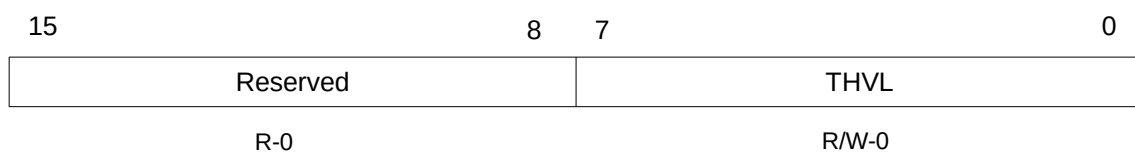
**HWAG Previous Tooth Period Value Register (HWAPCNT1)**

LEGEND: R = Read; -n = value after reset

Bit	Field	Value	Description
31-24	Reserved	0	Reads return 0.
23-0	PCNT(n-1)	0-FFFFFFh	Period (n-1) Value. Gives the period value of the previous tooth.

**HWAG Current Teeth Number Register (HWATHVL)**

Offset = 8Eh

**HWAG Current Teeth Number Register (HWATHVL)**

LEGEND: R/W = Read/Write; -n = value after reset

Bit	Field	Value	Description
15-8	Reserved	0	Reads return 0.
7-0	THVL	0-FFh	Teeth Value. Provides the current teeth number.