

TCA_PULSE_WIDTH_MEASURE

1. Operation Outline

Whenever the interrupt occurs, the captured value is displayed on the terminal software using the pulse width measurement mode of TCA timer.

2. Each Setting

Input pulse to TCA1 pin : default = (fcgck/2^2)/10

Trigger edge : default = falling edge main.c: Changing the value of "#define TCA_PULSE_WIDTH_MEASURE_EDGE" allows changing the trigger edge.

Source clock : default = fcgck/2^2 main.c: Changing the value of "#define TCA_PULSE_WIDTH_MEASURE_CLK" allows changing the source clock.

Edge capture : default = single edge main.c: Changing the value of "#define TCA_PULSE_WIDTH_MEASURE_EDGE_CAP" allows changing the edge capture.

Noise cancellation : None main.c: Changing the value of "#define TCA_WINDOWS_NOIZE_CANCEL" allows changing the noise cancellation setting.

Trigger input : TCA1 (Port73)

Timer interrupt : INTTCA1

UART : TXD2 (Port93)
: RXD2 (Port94)

Serial port setting

Baud rate	: 115200 (bps)
Data	: 8 (bit)
Parity	: None
Stop	: 1 (bit)
Flow control	: None

3. Basic Operation

Whenever the INTTCA1 interrupt occurs, the captured value is displayed on the terminal software.

Display example of terminal software

```
Pulse width measurement mode Sample Program
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Capture Edge: Single
Capture Value:
0x0A
0x0A
0x0A
:
```

4. Note

None.