ADLINK Technical Document

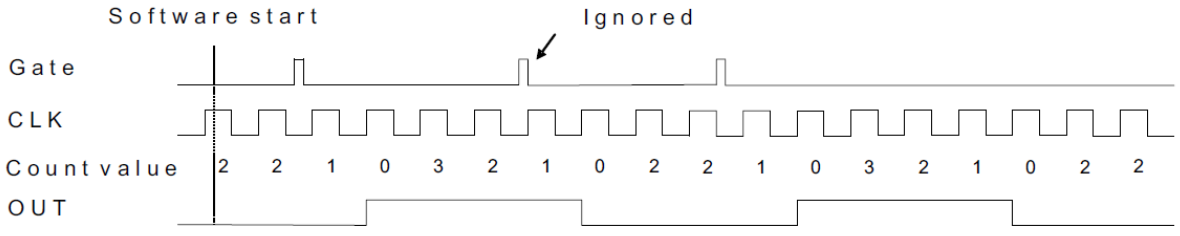
Abstract	How to Trigger Continuous Pulse Signal Out		
OS	Windows		
Keyword	GPTC		
Related Products	USB-1210, USB-1901, USB-1902, USB-1903, USB-2401		
Date	2021-12-24	**No.**	20211224001

- Issue Details:

This document outlines how to generate a continuous signal out pulse, one of the several GPTC functions available to users.

- More information:

The counter generates a pulse following every active edge of GPTC_GATE. After the software starts, every active GPTC_GATE edge triggers a single pulse with programmable delay and pulse width. Any GPTC_GATE triggers that occur when the prior pulse is not completed are ignored. Generation of two pulses with a pulse delay of two and a pulse width of four is shown.



- Solution:

Step 1: Identify pins

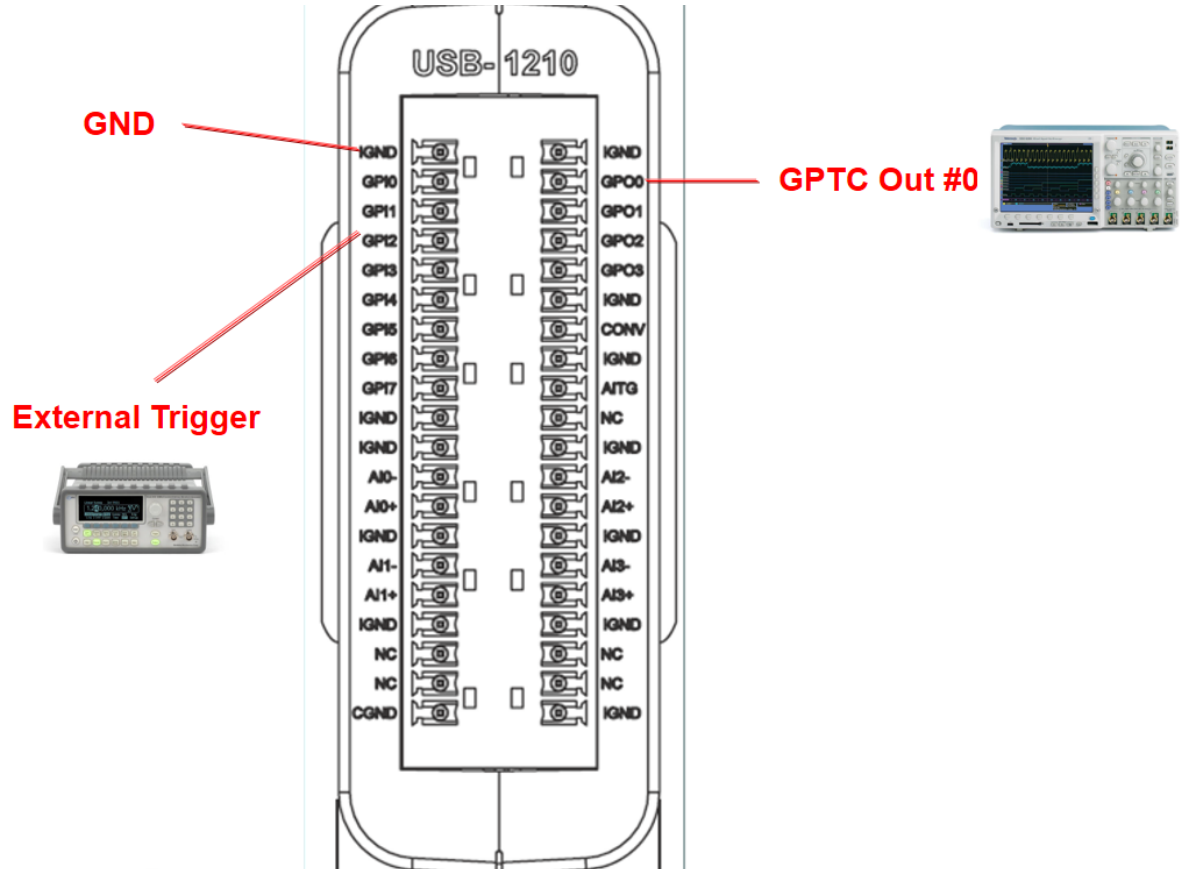
Refer to the user manual and check the pin definitions to find the **GPTC_OUT** and **GPTC_GATE** pin numbers. For the USB-1210, the GPTC_GATE#0 is pin 17, and the GPTC_OUT#0 is pin 39.

	Pin	Pin	
IGND	20	40	IGND
GPTC_CLK	19	39	GPTC_OUT0
GPTC_UD0	18	38	GPTC_OUT1
GPTC_GATE0	17	37	GPTC_OUT2
GPTC_AUX0	16	36	GPTC_OUT3
GPTC_CLK2	15	35	IGND
GPTC_UD2	14	34	N/C*
GPTC_GATE2	13	33	N/C*
GPTC_AUX2	12	32	N/C*
IGND	11	31	N/C*

	Pin#	Pin#	
IGND	20	40	IGND
GPI0	19	39	GPO0
GPI1	18	38	GPO1
GPI2	17	37	GPO2
GPI3	16	36	GPO3
GPI4	15	35	IGND
GPI5	14	34	N/C*
GPI6	13	33	N/C*
GPI7	12	32	N/C*
IGND	11	31	N/C*

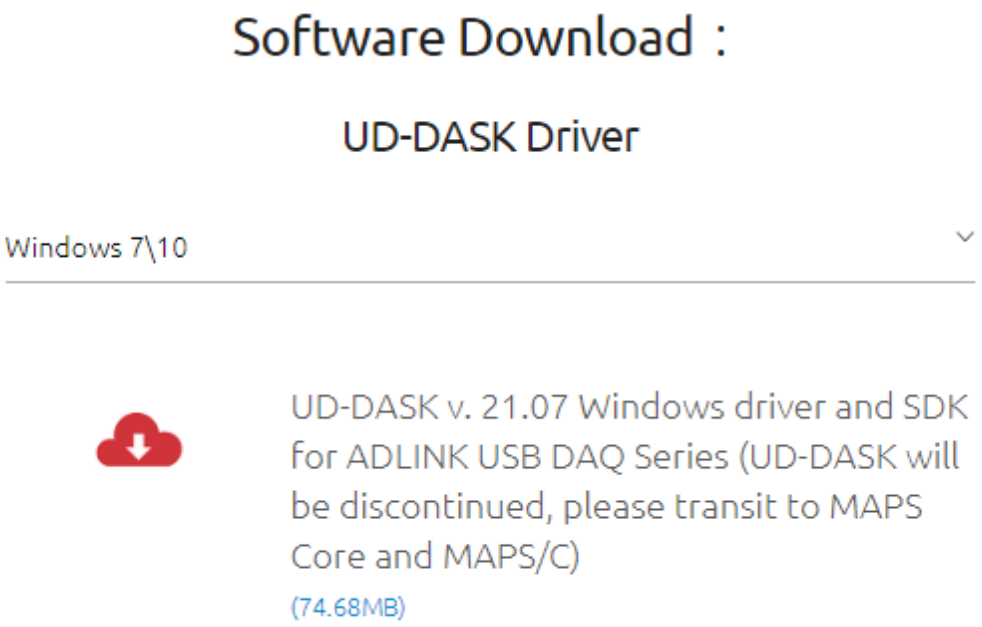
Step 2: Connect pins

Connect the wires as shown in the diagram below. Apply the trigger source to GPTC_GATE#0.



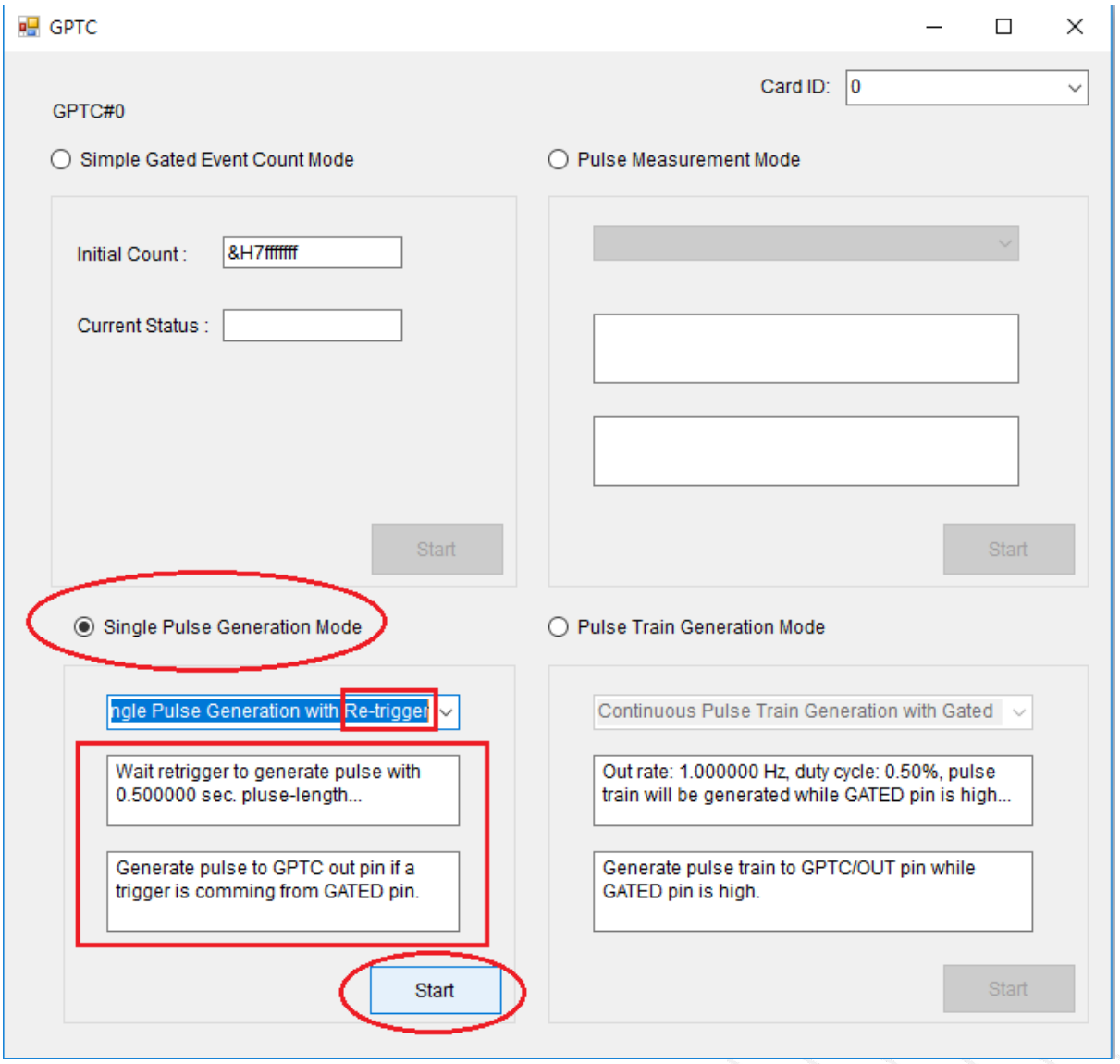
Step 3: Install U-Test

Download and install the UD-DASK software kit from the ADLINK website.



Step 4: Launch sample program

1. Go to C:\ADLINK\UDASK\Samples\1210\C#\1210GPTC\
2. Run **1210gptc.exe**
3. Select **Single Pulse Generation Mode**
4. From the dropdown, select **Single Pulse Generation with Re-trigger**



Step 5:

Keep all default settings and press the **Start** button.

Example output is shown in the **1210gptc.exe** user interface. This sample will source 0.5s pulse out. Each 5s external trigger signal on GPTC_GATE#0 will trigger GPTC_OUT#0 output each 0.5sec pulse with 0.5sec delay.