

## 1. Description

In the demo, ADC function test include:

- Under single mode, with single-end input, the usage of ADC using channel 0.
- Under single mode, with differential input, the usage of ADC using channel 0, 1.
- Under single-scan mode, with single-end input, the usage of ADC using channel 0, 1.
- Under single-scan mode, with differential input, the usage of ADC using channel 0, 1.
- Under continuous-scan mode, with single-end input, the usage of ADC using channel 0, 1.
- Under continuous -scan mode, with differential input, the usage of ADC using channel 0, 1.
- Under Burst mode, with single-end input, the usage of ADC using channel 1.

## 2. Test

All the message will be shown on Hyper-terminal in this demo, at baudrate 115200 bps.

First of all, download executable file into develop board, make sure that an RS-232 cable has been connected between PC and development board, then run the demo.

If RS-232 cable has been connected correctly, user can see seven options are shown on the Hyper-terminal, please obey the instruction and select one of options, then corresponding function will be executed:

- 1) Select 1, change ADC channel 0 input voltage from 0 to Vref, corresponding ADC convert value 0 to 4095 will be shown on Hyper-terminal.
- 2) Select 2, change ADC channel 0, 1 input voltage at range of 0-Vref, ADC0 used as Vin+, and ADC1 used as Vin-, the differential input voltage is equal to (Vadc0 - Vadc1), and the range of differential input voltage is -Vref ~ Vref, the corresponding ADC convert value 0 ~ 4095 will be shown on Hyper-terminal.
- 3) Select 3, change ADC channel 0, 1 input voltage from 0 to Vref respectively, corresponding ADC channel 0 value and channel 1 value from 0 to 4095 will be shown on Hyper-terminal.
- 4) Select 4, change ADC channel 0, 1 input voltage at range of 0-Vref, ADC0 used as Vin+, and ADC1 used as Vin-, the differential input voltage is equal to (Vadc0 - Vadc1), and the range of differential input voltage is -Vref ~ Vref, the corresponding ADC convert value 0 ~ 4095 will be shown on Hyper-terminal.
- 5) Select 5, change ADC channel 0, 1 input voltage from 0 to Vref respectively, corresponding ADC channel 0 value and channel 1 value from 0 to 4095 will be shown on Hyper-terminal.
- 6) Select 6, change ADC channel 0, 1 input voltage at range of 0-Vref, ADC0 used as Vin+, and ADC1 used as Vin-, the differential input voltage is equal to (Vadc0 - Vadc1), and the range of differential input voltage is -Vref ~ Vref, the corresponding ADC convert value 0 ~ 4095 will be shown on Hyper-terminal.
- 7) Select 7, change ADC channel 1 input voltage from 0 to Vref, corresponding ADC convert value 0 to 4095 will be shown on Hyper-terminal.