

ADC Example

This example shows typical use of the Analog-to-Digital Converter (ADC) in 16-bit, software triggered single and polled conversion mode with hardware average function. The ADC measures analogue voltage on the AD10 input channel - on the TWR-KM34Z75M board, the AD10 input channel is connected to a 5K potentiometer (R20).

Source code:

```

/*****
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 *****/
 * adc_test.c
 *****/
#include "drivers.h"

static volatile uint16 tmp16;

void main (void)
{
    SIM_Init (SIM_MODULE_ALL_PERIPH_ON_CONFIG);
    ADC_Init (ADC_MODULE_16B_SWTRG_XREF_CONFIG,
             HWAvg 32,
             ADC_CH_SE_POLL_CONFIG(AD10),
             ADC_CH_DISABLE_CONFIG,
             ADC_CH_DISABLE_CONFIG,
             ADC_CH_DISABLE_CONFIG,
             PRI_LVL0, NULL);

    while (1)
    {
        if (ADC_Ready(CHA))
        {
            tmp16 = ADC_Read(CHA);
            ADC_Start(CHA,AD10);
        }
    }
}

```

Toolchain support:

IAR EWARM 7.40.7	CodeWarrior 10.6	KEIL uVision 5.15	CrossWorks 3.6	ATOLLIC TrueStudio 5.3.0	Kinetis Design Studio 3.0.0
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