

Hi

I am trying to develop a project via the STM32F303RE Nucle Board. In the project, I need to read analog data from channel 0 (PA4) on the ADC2 hardware. For this I made an init code.

```

void ADC_DMA_Configuration(void)
{
ADC_InitTypeDef    ADC_InitStructure;
  ADC_CommonInitTypeDef ADC_CommonInitStructure;
  GPIO_InitTypeDef  GPIO_InitStructure;
  DMA_InitTypeDef   DMA_InitStructure;

  /* Configure the ADC clock */
  RCC_ADCCLKConfig(RCC_ADC12PLLCLK_Div1);
  /* Enable ADC1 clock */
  RCC_AHBPeriphClockCmd(RCC_AHBPeriph_ADC12, ENABLE);
  /* Enable GPIOA and GPIOC Periph clock */
  RCC_AHBPeriphClockCmd(RCC_AHBPeriph_GPIOA, ENABLE);
  /* Enable DMA2 clock */
  RCC_AHBPeriphClockCmd(RCC_AHBPeriph_DMA2, ENABLE);

  /* ADC Channels configuration */
  /* Configure ADC2 Channel0 as analog input */
  GPIO_InitStructure.GPIO_Pin = GPIO_Pin_4 ;
  GPIO_InitStructure.GPIO_Mode = GPIO_Mode_AN;
  GPIO_InitStructure.GPIO_PuPd = GPIO_PuPd_NOPULL ;
  GPIO_Init(GPIOA, &GPIO_InitStructure);

  /* DMA configuration */
  /* DMA2 Channel1 Init Test */
  DMA_InitStructure.DMA_PeripheralBaseAddr = (uint32_t)&ADC2->DR;
  DMA_InitStructure.DMA_MemoryBaseAddr = (uint32_t)&ADCConvertedValue;
  DMA_InitStructure.DMA_DIR = DMA_DIR_PeripheralSRC;
  DMA_InitStructure.DMA_BufferSize = 1;
  DMA_InitStructure.DMA_PeripheralInc = DMA_PeripheralInc_Disable;
  DMA_InitStructure.DMA_MemoryInc = DMA_MemoryInc_Disable;
  DMA_InitStructure.DMA_PeripheralDataSize = DMA_PeripheralDataSize_HalfWord;
  DMA_InitStructure.DMA_MemoryDataSize = DMA_MemoryDataSize_HalfWord;
  DMA_InitStructure.DMA_Mode = DMA_Mode_Circular;
  DMA_InitStructure.DMA_Priority = DMA_Priority_Medium;
  DMA_InitStructure.DMA_M2M = DMA_M2M_Disable;

  DMA_Init(DMA2_Channel1, &DMA_InitStructure);

  ADC_StructInit(&ADC_InitStructure);

  /* ADC Calibration procedure */
  ADC_VoltageRegulatorCmd(ADC2, ENABLE);

  /* Insert delay equal to 10 µs */
  Delay(10);

  ADC_SelectCalibrationMode(ADC2, ADC_CalibrationMode_Single);
  ADC_StartCalibration(ADC2);

  while(ADC_GetCalibrationStatus(ADC2) != RESET );
  calibration_value_1 = ADC_GetCalibrationValue(ADC2);
}

```

```
/* ADC Dual mode configuration */
ADC_CommonInitStructure.ADC_Mode = ADC_Mode_Interleave;

ADC_CommonInitStructure.ADC_Clock = ADC_Clock_AsynClkMode;
ADC_CommonInitStructure.ADC_DMAAccessMode = ADC_DMAAccessMode_1;
ADC_CommonInitStructure.ADC_DMAMode = ADC_DMAMode_Circular;
ADC_CommonInitStructure.ADC_TwoSamplingDelay = 10;
ADC_CommonInit(ADC2, &ADC_CommonInitStructure);

/* */
ADC_InitStructure.ADC_ContinuousConvMode = ADC_ContinuousConvMode_Enable;
ADC_InitStructure.ADC_Resolution = ADC_Resolution_12b;
ADC_InitStructure.ADC_ExternalTrigConvEvent = ADC_ExternalTrigConvEvent_0;
ADC_InitStructure.ADC_ExternalTrigEventEdge = ADC_ExternalTrigEventEdge_None;
ADC_InitStructure.ADC_DataAlign = ADC_DataAlign_Right;
ADC_InitStructure.ADC_OverrunMode = ADC_OverrunMode_Disable;
ADC_InitStructure.ADC_AutoInjMode = ADC_AutoInjec_Disable;
ADC_InitStructure.ADC_NbrOfRegChannel = 1;
ADC_Init(ADC2, &ADC_InitStructure);

/* ADC2 regular channel1 configuration */
ADC_RegularChannelConfig(ADC2, ADC_Channel_1, 1, ADC_SampleTime_7Cycles5);

/* Configures the ADC DMA */
ADC_DMAConfig(ADC2, ADC_DMAMode_Circular);
/* Enable the ADC DMA */
ADC_DMACmd(ADC2, ENABLE);

/* Enable ADC2 */
ADC_Cmd(ADC2, ENABLE);

/* wait for ADC1 ADRDY */
while(!ADC_GetFlagStatus(ADC2, ADC_FLAG_RDY));

/* Enable the DMA channel */
DMA_Cmd(DMA2_Channel1, ENABLE);

/* Start ADC2 Software Conversion */
ADC_StartConversion(ADC2);

}
```

When I run these codes I can't read adc. I ran the same codes with ADC1 and DMA1. But ADC2 and DMA2 do not work.

Table 80. STM32F303xB/C/D/E, STM32F358xC and STM32F398xE summary of DMA2 requests for each channel

Peripherals	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5
ADC	ADC2	ADC4	ADC2 ⁽¹⁾	ADC4 ⁽¹⁾	ADC3
SPI	SPI3_RX	SPI3_TX	-	SPI4_RX ⁽²⁾	SPI4_TX ⁽²⁾
UART4	-	-	UART4_RX	-	UART4_TX
TIM6 / DAC	-	-	TIM6_UP DAC_CH1	-	-
TIM7 / DAC	-	-	-	TIM7_UP DAC_CH2	-
TIM8	TIM8_CH3 TIM8_UP	TIM8_CH4 TIM8_TRIG TIM8_COM	TIM8_CH1	-	TIM8_CH2
TIM20⁽²⁾	TIM20_CH1	TIM20_CH2	TIM20_CH3 TIM20_UP	TIM20_CH4 TIM20_TRIG TIM20_COM	-

1. DMA request mapped on this DMA channel only if the corresponding remapping bit is set in the SYSCFG_CFGR1 register. For more details, please refer to [Section 12.1.1: SYSCFG configuration register 1 \(SYSCFG_CFGR1\) on page 245.](#)

Is there something I'm missing? Why does not work?

Thanks