

## How to use AT32F4xx\_DAC to output noise waveforms

## Introduction

This sample code is written to demonstrate how to use AT32 MCU's DAC to output noise waveforms.

Applicable products:

Product series	AT32F403xx
	AT32F403Axx
	AT32F407xx

List of major peripherals used:

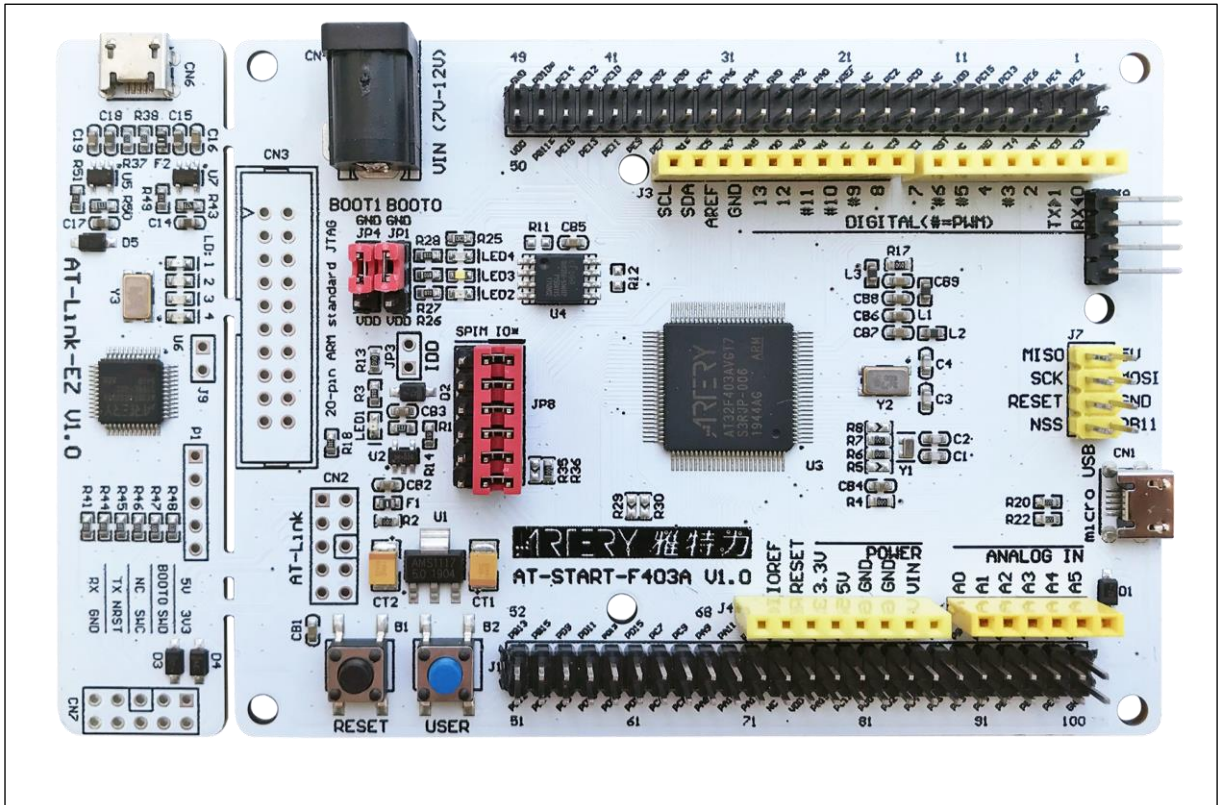
Peripherals	TMR
	DAC
	GPIO

## 1 Quick start

### 1.1 Hardware resources

- 1) AT-START-F403A V1.0 evaluation board (for other product series, please use corresponding evaluation board)

Figure 1. AT-START-F403A V1.0 evaluation board



- 2) Waveform output PA4

### 1.2 Software resources

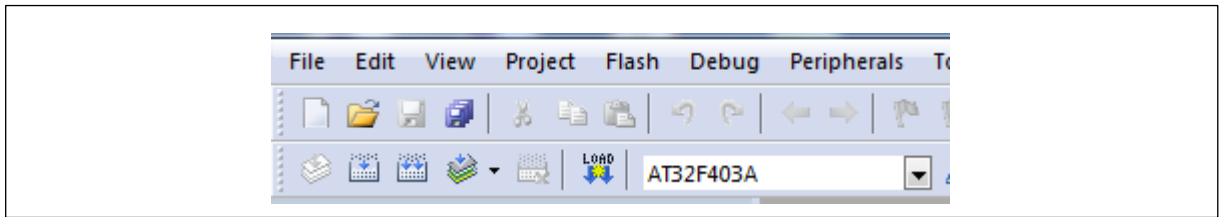
- 1) SourceCode
  - OneChannel\_NoiseWave (source code)

Note: All of projects are built based on Keil 5. For the need to run in other compiling environments, user can make simple adjustments according to `BSP_PACK_V1.x.x\BSPs\AT32F4xx_StdPeriph_Lib_V1.x.x\Project\Templatess`.

### 1.3 Example case

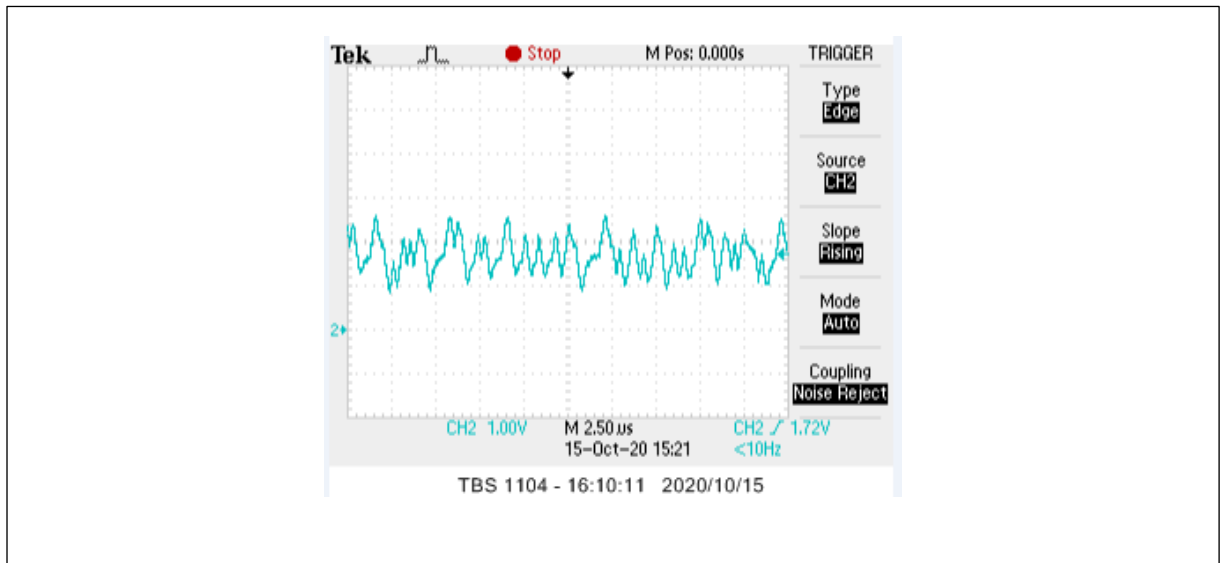
- 1) Open **OneChannel\_NoiseWave**, compile and download it to the evaluation board
- 2) This test uses AT-START-F403A V1.0 evaluation board, so in Figure 4 we choose AT32F403A

Figure 2. Choose Keil project



3) Reset the evaluation board, and use oscilloscope to display PA4 waveforms.

Figure 3. View waveforms



## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2021.12.06	2.0.0	Initial release

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