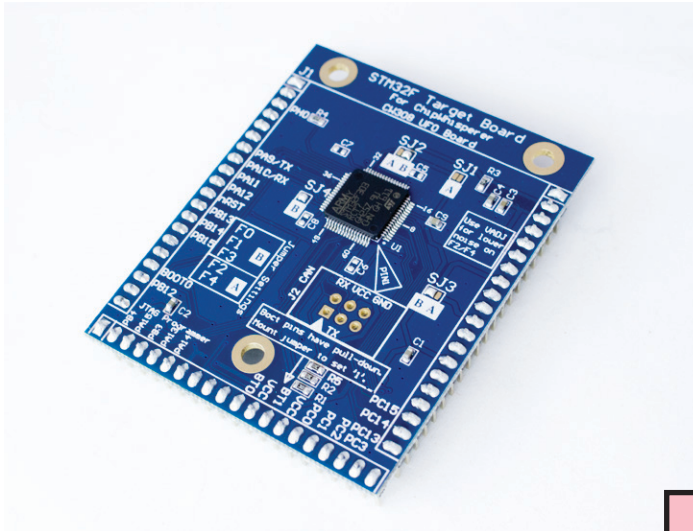




# STM32Fx/STM32Lx UFO Target

NewAE Technology Inc.  
newae.com



The CW308T-STM32F target series allows experiments on the popular STM32F/STM32L series of Arm devices in TQFP-64 package. This includes the STM32F0, STM32F1, STM32F2, STM32F3, STM32F4, STM32L4, and STM32L5. Devices within this family have varying core types, peripheral options, and hardware cryptographic peripheral support.

Devices within this family also have differing support for a data and instruction caches, allowing you to compare code and libraries running on different processor architectures while keeping the same development setup. The ChipWhisperer capture supports programming this series of devices via a serial bootloader.

**CW308 UFO Baseboard Required for use!**

**ST-LINK/V2 Recommended for Debug.**

## Product Highlights

STM32Fx and STM32Lx series in TQFP64 package supported.

Optional CAN header allows connection of CANoodler (only for devices with CAN peripheral).

JTAG header on CW308 baseboard allows use of ST-Link/V2 or other JTAG programmers and debuggers.

Example serial program and HAL library allows use of most ChipWhisperer firmware examples and tutorials directly.

32-bit cores (Arm Cortex) with variety of peripheral options, including multiple security cores.

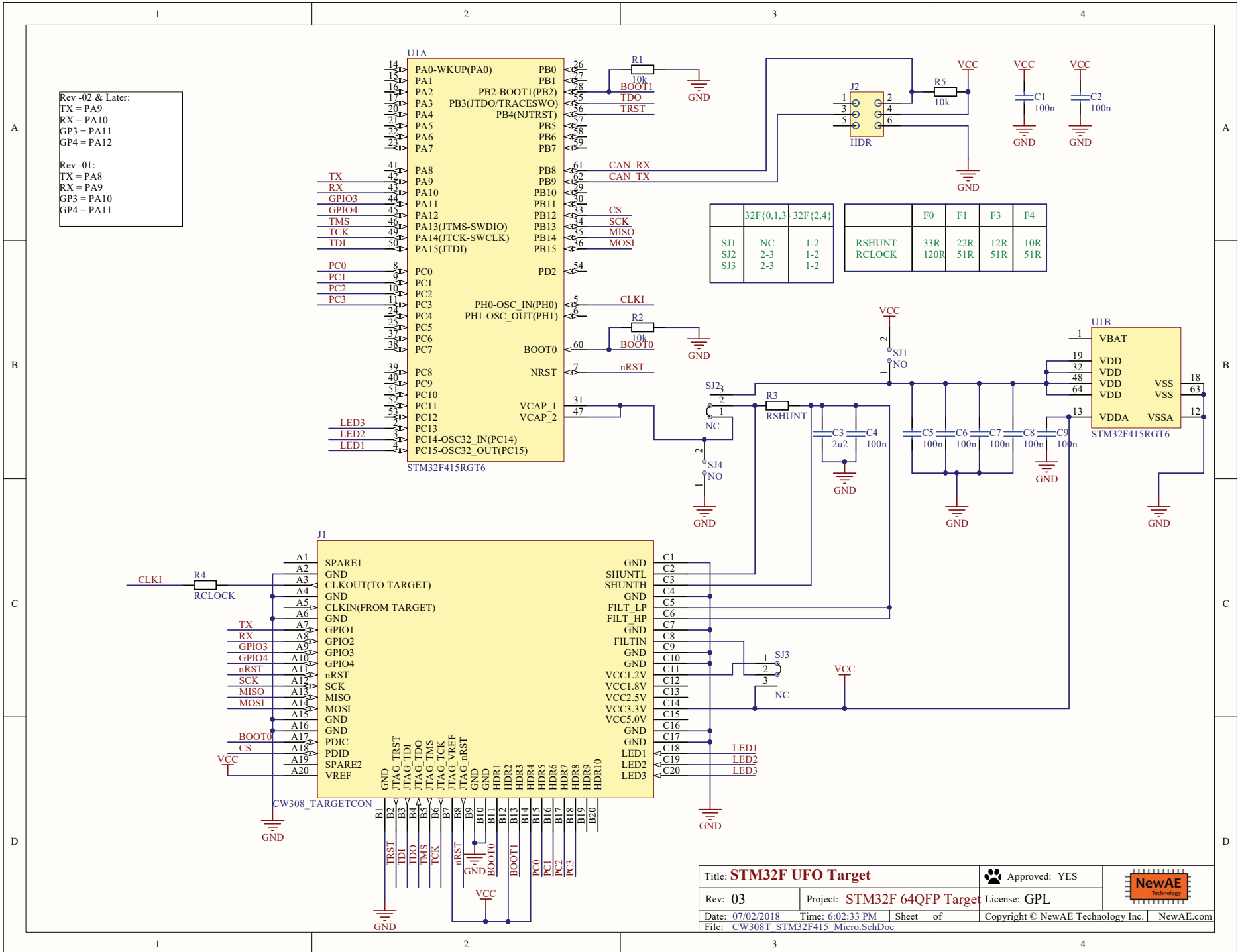
## Ordering Summary

NewAE Part Number	Series	Target Part Number	HW AES	Flash	SRAM
NAE-CW308T-STM32F0	F0	STM32F071RBT6	No	128KB	16KB
NAE-CW308T-STM32F1	F1	STM32F100RBT6B	No	128KB	8KB
NAE-CW308T-STM32F2HWC	F2	STM32F215RET6	Yes	512KB	132KB
NAE-CW308T-STM32F3	F3	STM32F303RCT7	No	256KB	40KB
NAE-CW308T-STM32F4HWC	F4	STM32F415RGT6	Yes	1MB	192KB
NAE-CW308T-STM32F4	F4	STM32F405RGT6	No	1MB	192KB
NAE-CW308T-STM32L4	L4	STM32L443RCT6	Yes	256KB	64KB
NAE-CW308T-STM32L5HWC	L5	STM32L562RET6	Yes	512KB	256KB

## Product Links

- Full Documentation <https://wiki.newae.com/CW308T-STM32F>
- Firmware Examples <https://github.com/newaetech/chipwhisperer/tree/master/hardware/victims/firmware>
- Design Files <https://github.com/newaetech/chipwhisperer-target-cw308t>

# Schematic



Title: <b>STM32F UFO Target</b>		Approved: YES	
Rev: 03	Project: STM32F 64QFP Target	License: GPL	
Date: 07/02/2018	Time: 6:02:33 PM	Sheet of	Copyright © NewAE Technology Inc. NewAE.com
File: CW308T_STM32F415_Micro.SchDoc			

## Disclaimers

All content is Copyright NewAE Technology Inc., 2018-2020. ChipWhisperer is a trademark of NewAE Technology Inc., registered in the United States of America, Europe, and Peoples Republic of China. Trademarks are claimed in all jurisdictions and may be registered in other states than specified here.

NewAE Technology makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. NewAE Technology does not make any commitment to update the information contained herein. NewAE Technology products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life. NewAE Technology products are designed solely for teaching purposes.

All other product names and trademarks are the property of their respective owners, which are in no way associated or affiliated with NewAE Technology Inc. Use of these names does not imply any co-operation or endorsement.

AVR and XMEGA are registered trademarks or trademarks of Atmel Corporation or its subsidiaries, in the US and/or other countries.

Artix and Spartan are registered trademarks or trademarks of Xilinx, Inc. or its subsidiaries, in the US and/or other countries.

Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

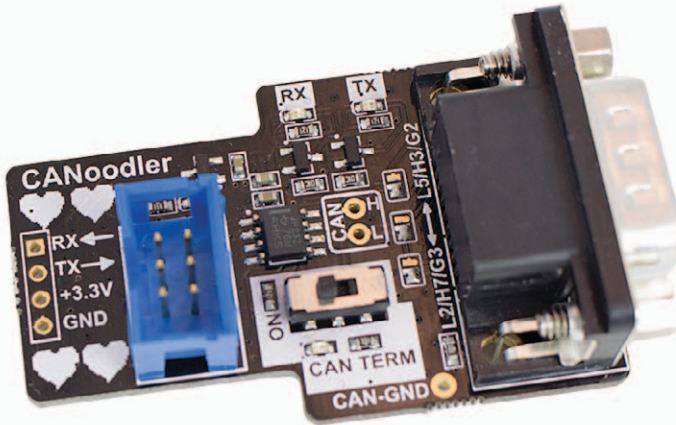


NewAE Technology Inc.  
newae.com

ChipWhisperer® Embedded Security Analysis Tools  
Tools

# CANoodler

Product Datasheet



CANoodler is a simple CAN (not CAN-FD) interface, which provides logic-level 3.3V output. It's designed to be used with microcontrollers that have CAN blocks inside them, and in particular uses a pinout present on some ChipWhisperer CW308 (UFO) Target boards.

It is powered from 3.3V only (does not require a 5V supply) making it easier to interface with existing 3.3V systems compared to many CAN interfaces.

The design is fully open source and can be modified for your own use (or integrated into your product).

## Product Highlights

Switchable CAN termination resistor with LED feedback on current state.

LEDs for TX/RX (uses MOSFET to drive LEDs so doesn't slow your I/O pins down).

SN65HVD232DR Can Transceiver IC

Reverse-polarity protection on 3.3V power supply, device requires only a single 3.3V supply.

Solder jumpers select one of two possible DB9 CAN pinouts.

## Ordering Summary

NAE-CANOODLER CANoodler assembled unit (does not come with cables).

## Product Links

Full Documentation <https://github.com/newaetech/CANoodler>

# Schematic

