

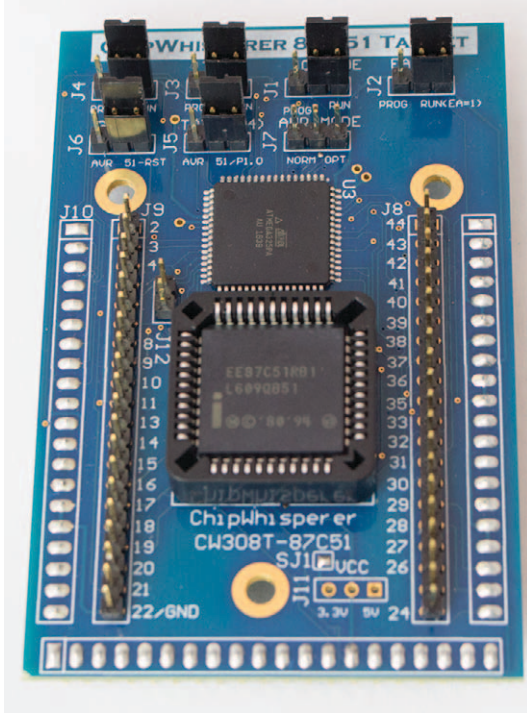


NewAE Technology Inc.
newae.com

ChipWhisperer® Embedded Security Analysis Tools CW308 UFO Targets

87C51 UFO Target

Product Datasheet



Not everything is about the latest 32-bit ARM processor, this target can be used with a classic Intel 87C51 device. Includes one pre-programmed 87C51 device which does AES Authentication, TEA authentication, password checks, and glitchable code. An AVR “co-processor” provides ability to perform reads on the device to experiment with attacks against the code verification & fuse bits.

Note the included device is OTP so cannot be reused, but you can fit 89C51 PLCC44 devices in the same socket if you wish to have a FLASH based target (will require an external programmer).

The included OTP device has the bonus feature of an “XOR Encryption Table” used during code verification, something not present in the FLASH based devices. This table has been pre-programmed with a known pattern.

CW308 UFO Baseboard REQUIRED for use!

Product Highlights

87C51 in PLCC44 package supported (includes EE87C51RB1).

AVR co-processor provides on-board read support to perform attacks on fuse bits and XOR table.

Provided OTP devices has XOR encryption table enabled (but not fuse bits) to allow attacks on XOR encryption table.

Example application for 87C51 device allows you to perform AES power analysis, XOR power analysis, glitch attacks, and more!

Also works with 89C51 devices (FLASH based), but requires an external programmer to load them (no ISP support).

See wiki documentation for complete tutorial & list of examples!

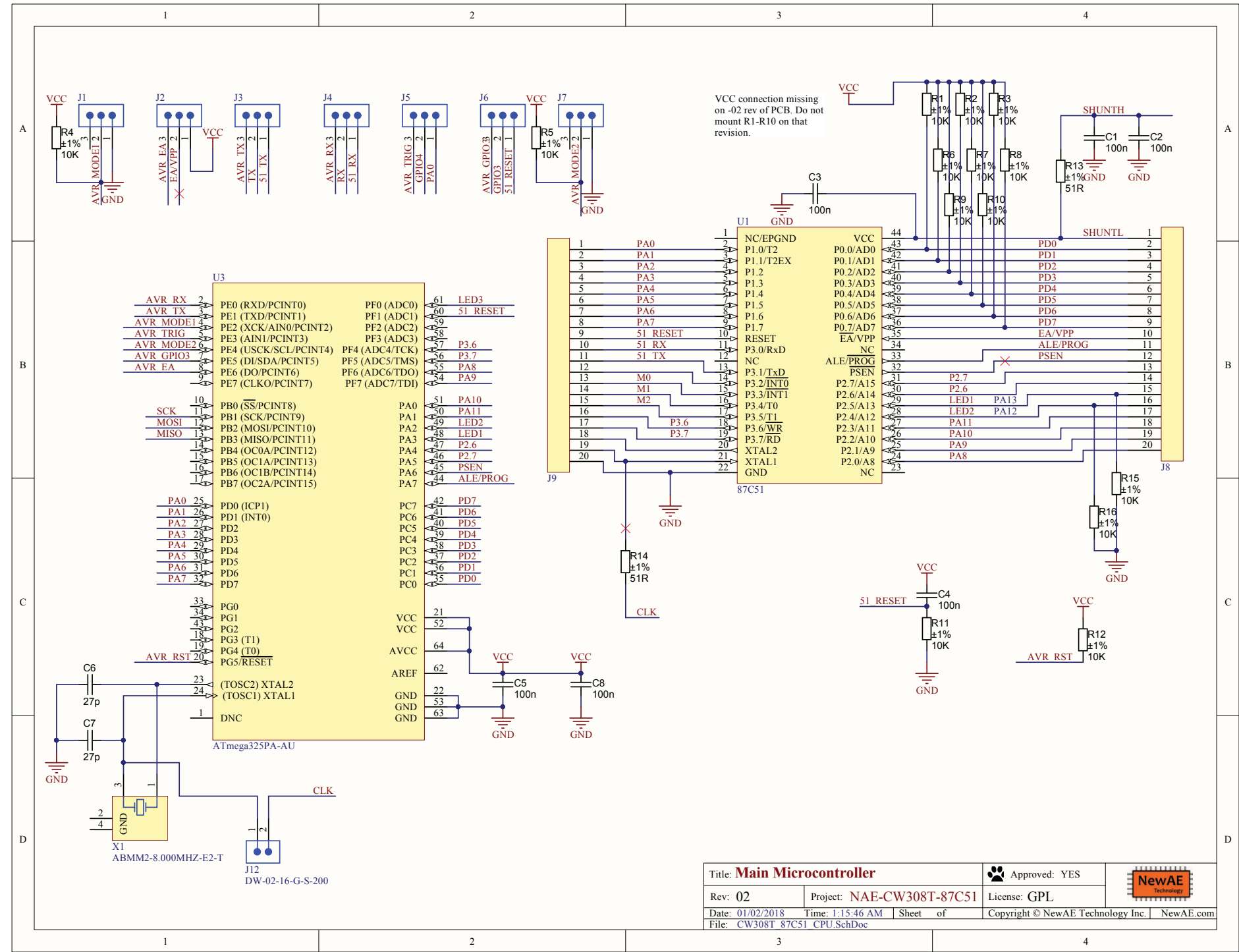
Ordering Summary

NAE-CW308T-87C51 UFO Target with 87C51 OTP device (Intel EE87C51RB1).

Product Links

Full Documentation <https://wiki.newae.com/CW308T-87C51>

Schematic



Title: Main Microcontroller		Approved: YES	
Rev: 02	Project: NAE-CW308T-87C51	License: GPL	
Date: 01/02/2018	Time: 1:15:46 AM	Sheet	of
File: CW308T_87C51_CPU.SchDoc		Copyright © NewAE Technology Inc. NewAE.com	





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